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Safeguards Symposium Keynote Remarks

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I'm delighted to be here this morning, and I welcome the opportunity to speak to you about U.S. efforts to strengthen the IAEA safeguards system.

The United States has long considered the international safeguards system to be a central pillar of the nuclear nonproliferation regime's strategy for preventing the spread of nuclear weapons and ensuring peaceful uses of atomic energy. President Obama re-emphasized the importance of safeguards in his 2009 Prague speech, when he called for "more resources and authority" for international inspections.

But nuclear nonproliferation is a global challenge and the entire global community has a major stake in maintaining the effectiveness and credibility of the international safeguards system.

The United States believes it is critically important for Member States to support the Secretariat's efforts to continually improve the effectiveness and efficiency of the IAEA safeguards system. We should continue to work with the Agency to provide resources, technology, expertise, and training to strengthen the Secretariat's capabilities to implement safeguards agreements effectively and efficiently.

The Secretariat went to extraordinary lengths over the last year to explain how safeguards implementation has evolved, particularly at the level of the state as a whole. The United States, like other member states, found the Secretariat's thorough technical briefings and the Director General's Supplementary Document to be extremely valuable.

Now, after discussion of the issue at the September meetings of the Board of Governors and the General Conference, it really is time to let the Secretariat get on with its work. Our task now, especially for the assembled experts here at this Symposium, is to identify options for helping the IAEA as appropriate to find the best possible technologies, procedures, and practices for safeguards implementation.

And like all of you, we look forward to further updates from the Secretariat on future lessons learned in implementing strengthened safeguards.

I would like to spend a little time speaking about how the United States supports the IAEA safeguards system.

The United States has the oldest and largest Member State Support Program, and has made many contributions over its 37 year lifespan to strengthen IAEA safeguards and respond to IAEA needs.

As many of you know, the USSP has supported the Agency in the areas of verification and analysis tools and methods, systems studies, information processing, training, quality management, and administrative support. Some of the successful tasks have been carried out as joint tasks with other Members States and the USSP continues to seek such collaborations that build on the unique strengths of each partner. For example, many of the IAEA's surveillance systems and other essential verification tools are products of U.S. and German Support Program collaborations. A U.S.-Belgian training course draws on U.S. training expertise for research reactors and Belgian research reactor facilities that afford a richer learning environment than either support program alone could easily accomplish. The USSP also has joined with other Member States to support Safeguards' largest tasks to date including, the "Enhancing Capabilities of the Safeguards Analytical Services" (ECAS) project to manage the IAEA's safeguards analytical laboratories, and the important project to modernize Safeguards' IT systems and security architecture to enable Safeguards to meet quality and efficiency goals well into the future.

The United States also launched a longer-range program of support for IAEA safeguards, called the Next Generation Safeguards Initiative (NGSI). The primary goal of NGSI is to continually advance the state of the art of international safeguards and develop the policies, concepts and approaches, human capital, technologies, and infrastructure that the IAEA needs to meet its evolving mission.

While NGSI has a U.S. domestic focus intended to ensure that U.S. support for international safeguards continues, its underlying purpose is international. Thus, NGSI cannot succeed as a purely domestic effort; indeed, it is intended to serve as a catalyst for a much broader commitment to international safeguards in partnership with not only the IAEA, but also bilaterally with other countries. Combining U.S. technical and scientific assets with the resources of international partners will allow us to keep pace with the emerging safeguards challenges.

With respect to strategy, the NGSI's Policy and Concepts and Approaches sub-programs work to support the development of technically sound concepts for safeguards implementation. For example, NGSI's recent projects have included work on Safeguards by Design, Acquisition Pathway Analysis, Performance Targets to evaluate the effectiveness of safeguards in achieving safeguards objectives, and advanced concepts for safeguards approaches for gas centrifuge enrichment plants.

In addition to a good strategy, the success of the international safeguards system depends on the talent, knowledge, skills, and commitment of the people who are working on safeguards issues.

Today both the United States and the IAEA face a daunting challenge driven by attrition in the field due primarily to significant attrition.

To address the looming human capital crisis, NGSI is taking steps to revitalize and expand the human capital base, with programs to cover the full spectrum of current and emerging safeguard-relevant disciplines. The NGSI Human Capital Development (HCD) program has taken a number of initial steps to implement our action plan to develop and educate the next generation of U.S. international safeguards specialists.

The HCD sub-program has played a key role in recruiting, educating, training and retaining the next generation of safeguards professionals in the United States. The program includes summer internships for undergraduate and graduate students at the National Laboratories; fellowships for PhD candidates in Nuclear Engineering; post-doctorate fellowships at National Laboratories; intensive week-long safeguards courses annually for students and U.S. Government employees; nuclear non-proliferation curriculum development with more than two dozen universities; and programmatic safeguards work for young- and mid-career professionals.

Since its inception in 2008, the HCD program has trained more than 400 student interns from over 100 universities on nonproliferation and safeguards issues, and an impressive 80% of post-doctorate fellows have found follow-on employment at the National Laboratories.

In addition to working to develop the next generation of safeguards experts, we work with the IAEA Secretariat to meet its needs for new safeguards technologies.

The NGSI Safeguards Technology Development subprogram supports U.S. national laboratories in the development and application of tools, technologies, and methods that optimize the effectiveness and efficiency of safeguards implementation, particularly by focusing on developing new tools to assist inspectors' nuclear material accountancy efforts. This subprogram focuses on transitioning technologies under development in the laboratory system with potential safeguards application from the laboratory into the field. Focus areas include:

- Advanced nuclear measurement technologies;
- Field-portable, near real-time analysis tools;
- Data integration and authentication applications;
- Improved detector materials; and
- Strengthened technology development infrastructure at the National Laboratories.

These technology developments help to support both the IAEA's and Member States' implementation of their safeguards agreements effectively and efficiently. The development of safeguards technology will help the IAEA increase its productivity and effectiveness in implementing safeguards agreements, particularly in the field. As Deputy Director General (DDG) Varjoranta has said, "The Agency's unique ability and mandate to conduct in-field

verification activity is its real added value and will continue to form the bedrock of the Agency's verification effort."

In addition to our efforts to support the development of new concepts, approaches, technologies, and expertise, NGSI cooperates with 25 countries and 2 regional inspectorates, both bilaterally and regionally, on more than 100 technical projects to strengthen the international safeguards system.

NGSI cooperates with nearly a dozen countries that are developing nuclear power for the first time. NGSI provides support to these newcomer countries as they prepare the infrastructure and procedures necessary to provide timely, correct, and complete declarations to the IAEA. In total, NGSI trains more than 500 foreign practitioners each year on international and domestic safeguards.

State and regional authorities are a critical link for strengthening the international safeguards system. NGSI helps increase the effectiveness and efficiency of safeguards implementation in partner countries by supporting projects that directly support the development and improvement of State Systems of Accounting for and Control of nuclear material and build the capacity of State or regional authorities responsible for safeguards implementation.

NGSI also works with partner countries to demonstrate and evaluate next generation safeguards technologies. While many tools and technologies work well in the laboratory, they cannot be accepted for routine use by the IAEA until they are proven to function effectively in real-world situations. NGSI's technology development and demonstration efforts are an important part of the effort to enlarge the toolkit available to the IAEA to safeguard some of the world's most complex nuclear facilities.

As Secretary Moniz said at the General Conference last month: "We must re-dedicate ourselves to reinforcing international organizations and cooperation. We must bolster the nonproliferation regime by respecting its rules and responsibilities. And we must strengthen the IAEA by ensuring it has sufficient financial resources, expertise, legal authorities and political support from its Member States."

I urge you to work together at this Symposium to make real progress on promoting peaceful uses of nuclear energy, strengthening safeguards, and preventing proliferation. My great thanks to the IAEA for pulling this symposium together. Thank you and I wish you a successful symposium.