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Subcommittee on Strategic Forces
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Chairman Rogers, Ranking Member Cooper, and Members of the Subcommittee, thank you for the opportunity to discuss the Joint Comprehensive Plan of Action (JCPOA) reached between the P5+1 (China, France, Germany, Russia, the United Kingdom, and the United States), the European Union, and Iran. I appreciate the opportunity to be here to discuss U.S., and in particular the Department of Energy's (DOE) – specifically the National Nuclear Security Administration's (NNSA) – support of and involvement with the International Atomic Energy Agency (IAEA).

As Secretary Moniz has said, the JCPOA prevents Iran from acquiring a nuclear weapon, provides strong verification measures that give us ample time to respond if Iran chooses to violate its terms, and takes none of our options off the table.

America's leading nuclear experts at the Department were involved throughout these negotiations. The list of laboratories and sites that provided support is extensive, including Argonne National Laboratory, Lawrence Livermore National Laboratory, Los Alamos National Laboratory, Oak Ridge National Laboratory, Pacific Northwest National Laboratory, Sandia National Laboratory, Savannah River National Laboratory, the Y-12 National Security Complex, and the Kansas City National Security Campus.

These nuclear experts were essential to evaluating and developing technical proposals in support of the U.S. delegation. As a result of their work, the Secretary has said that he is confident that the technical underpinnings of the JCPOA are solid and the Department stands ready to assist in its implementation. I want to underscore that the United States – in particular the DOE/NNSA and our national laboratories – has for many decades closely cooperated with the IAEA Department of Safeguards to ensure that the IAEA has what it needs to implement international safeguards and verification around the world.

Let me take a moment to explain the U.S Government's support to and involvement with the IAEA, and then I will discuss the Department's work with the IAEA on nuclear safeguards. The United States provides approximately 25 percent of the IAEA's regular budget through our assessed contribution. The United States also provides voluntary extra-budgetary contributions, beyond the regular assessed contribution, in support of the IAEA's safeguards, security, and safety missions, as well as to support IAEA technical cooperation projects.

U.S. assistance also includes considerable in-kind assistance to the IAEA, including technical assistance from our national laboratories. U.S. in-kind contributions include the provision of technology and equipment, subject matter experts, IAEA inspector training, and support to IAEA-hosted training courses for Member State representatives in safety, security and safeguards. Together, these U.S. contributions help ensure that the IAEA has the tools, training,

and resources it needs to carry out its responsibilities to safeguard nuclear materials and facilities worldwide to detect and deter nuclear proliferation.

I would like to share with the Subcommittee a few examples of the substantial safeguards work that NNSA supports. Every year, the Department hosts training courses for IAEA inspectors and analysts on a wide range of topics including measuring nuclear materials, inspector access under the Additional Protocol, advanced plutonium verification, enrichment technology, export controls and commodity identification. These courses are organized and implemented with the support of experts from our national laboratories and take place in the United States, at IAEA facilities in Vienna, and at international nuclear facilities in collaboration with other IAEA Member States. For example, every new IAEA inspector since 1980 has had nuclear materials measurement training at the Los Alamos National Laboratory.

The Department's national laboratories have played a major role in developing and improving safeguards technologies and providing expertise since the IAEA's inception in 1957. They develop and transfer various technologies to the IAEA for use in safeguards systems all over the world. This equipment goes through a rigorous evaluation process by the IAEA before being accepted into routine use, including vulnerability analyses by independent parties. The On-line Enrichment Monitor (OLEM) is one example of a technology jointly developed by our national laboratories and the IAEA. The OLEM is an innovative safeguards technology that can be used to continuously monitor the enrichment levels of uranium in gaseous form at a centrifuge enrichment plant. And for the first time, as a result of the JCPOA, OLEM will be used in Iran.

In addition to our training and safeguards technology cooperation, five of the Department's national laboratories participate in the IAEA's Network of Analytical Laboratories, or NWAL, a network of 20 laboratories in 10 countries that provide analytical services to the IAEA. These laboratories undergo a rigorous qualification process by the IAEA to ensure that they maintain the highest quality standards. While the IAEA analyzes material and environmental samples at its laboratory in Seibersdorf, Austria, the agency also relies upon its NWAL to assist in sample analysis for logistical purposes, quality control and to have access to state-of-the-art techniques. Environmental sampling, in particular, is a very powerful tool that the IAEA uses to determine if undeclared activities are occurring. The presence of nuclear material can be detected even at very minute levels, after long periods of time, and even after efforts have been made to sanitize the area. The IAEA relies on the U.S. laboratories that are part of the NWAL because of our world class capabilities for high-precision analysis and quality control.

Finally, the United States provides personnel to the IAEA to support the Department of Safeguards in a variety of areas, including technology development, information and statistical analysis, and development of safeguards approaches. As of June, approximately 10 percent of the workforce of the IAEA's Department of Safeguards was from the United States, and many of these Americans have worked for DOE or our National Laboratory system. We are proud of the assistance we provide and the close collaboration we have with the IAEA.

The JCPOA is not built on trust. It is built on hard-nosed requirements that will limit Iran's activities and ensure access, transparency, and verification. To preclude cheating, IAEA inspectors will be given unprecedented access to all of Iran's declared nuclear facilities and any

other sites of concern, as well as the entire nuclear supply chain, from uranium supply to centrifuge manufacturing and operation. And this access to the uranium supply chain comes with a 25 year commitment.

The IAEA will be explicitly permitted to use advanced technologies, such as enrichment monitoring devices and electronic seals, in Iran's facilities. As I mentioned, many of these advanced technologies have been developed at DOE/NNSA national laboratories. Use of these technologies will increase not only the effectiveness of IAEA safeguards but also the efficiency of inspection activities, resulting in best use of an important IAEA resource – trained and experienced inspectors.

If the international community suspects that Iran is trying to cheat, the IAEA can request access to any suspicious location. Much has been made about a 24 day process for ensuring that IAEA inspectors can gain access to undeclared nuclear sites. In fact, the IAEA can request access to any suspicious location with 24 hours' notice under the Additional Protocol, which Iran will implement under this deal. This deal does not change that baseline.

However, recognizing that disputes could arise regarding IAEA access to undeclared facilities, the JCPOA provides a crucial new tool for resolving such disputes within a short period of time so that the IAEA gains the access it needs in a timely fashion — within no more than 24 days. This new tool does not in any way limit the IAEA's access rights or inspection timelines under Iran's safeguards agreement and Additional Protocol. Most important, environmental sampling can detect microscopic traces of nuclear materials even after attempts are made to remove the nuclear material. As I mentioned, the IAEA's Network of Analytical Laboratories, including U.S. laboratories, often helps to analyze such samples.

In fact, Iran's history provides a good example. In February 2003, the IAEA requested access under Iran's safeguards agreement to a suspicious facility in Tehran suspected of undeclared nuclear activities. Negotiations over access to the site dragged on for six months, but even after that long delay, environmental samples taken by the IAEA revealed nuclear activity even though Iran had made a substantial effort to remove and cover up the evidence. The JCPOA dramatically shortens the period over which Iran could drag out such an access dispute.

The JCPOA contains provisions of different duration — with some provisions in place for 10 years, others for 15 years and others for 20 or 25 years. It is critical to note that even after 25 years, key constraints and transparency measures, such as Iran's enduring obligations under the Nuclear Non-Proliferation Treaty and safeguards agreement, and the new legal obligations Iran will assume under the Additional Protocol, remain in place indefinitely.

In closing, I want to acknowledge the tireless work of the negotiating team, led by Secretary Kerry. The U.S. multi-agency delegation worked together collegially and seamlessly, and the P5+1 displayed remarkable cooperation and cohesion throughout this complex endeavor.

The JCPOA is based on sound scientific and technical analysis. Because of its deep grounding in exhaustive technical analysis, carried out largely by highly capable DOE scientists and

engineers, and because of the solid foundation of the IAEA, I am confident that this is a good deal for America, for our allies, and for our global security.

Thank you for the opportunity to be here. I look forward to answering your questions.