

The Republic of Kazakhstan and the United States of America note with satisfaction the successful efforts of the Cooperative Threat Reduction Program and will continue to strengthen the physical security on the former Semipalatinsk Test Site.

The United States of America will continue to partner with the Republic of Kazakhstan to strengthen its joint efforts to prevent illicit trafficking in nuclear and radiological materials.

The United States of America welcomes the Republic of Kazakhstan's activities to strengthen nuclear security and implement decisions of the Washington and Seoul Nuclear Security Summits, including by converting the VVR-K research reactor at the Institute of Nuclear Physics (INP) to low enriched uranium (LEU) fuel, downblending the INP's highly enriched uranium (HEU) material and removing the

HEU spent fuel from the reactor. The United States and Kazakhstan will continue to work together to convert Kazakhstan's remaining HEU reactors to LEU fuel and eliminate all remaining HEU research reactor fuel as soon as technically feasible.

The United States of America supports the efforts of the Republic of Kazakhstan to host the IAEA LEU Bank, establish a Regional Nuclear Security Training Center, and strengthen its emergency preparedness, response and mitigation capabilities.

The Republic of Kazakhstan and the United States of America attach importance to Nuclear Security Summit process.

NOTE: An original was not available for verification of the content of this joint statement.

Joint Statement by the United States and the European Union on Combating Illicit Trafficking *March 25, 2014*

The European Union and the United States of America, in cooperation with the International Atomic Energy Agency (IAEA), each understand the importance of nuclear security and embrace the shared international responsibility to develop and promote systems and measures for the prevention of, detection of, and response to nuclear or other radioactive materials out of regulatory control. In recognition of this international responsibility, and in support of the Nuclear Security Summit Key Topic of Combating Illicit Trafficking, and in line with the conclusions of the successful "International Conference on Nuclear Security: Enhancing Global Efforts" organised by the IAEA in Vienna on 1-5 July 2013, we are taking the following initial steps:

- The IAEA Nuclear Security Series, specifically the Implementing Guide on Nuclear Security Systems and Measures for the Detection of Nuclear and Other Radioactive Material out of Regulatory Control, emphasizes the importance of detection instruments in the context of a na-

tional level Nuclear Security Detection Architecture. In support of this principle, the European Commission Directorate General for Home Affairs (EC-HOME), the Joint Research Centre (EC-JRC), the U.S. Department of Homeland Security Domestic Nuclear Detection Office (DNDO), the U.S. Department of Energy (DOE), and the International Atomic Energy Agency (IAEA) have collaborated through the Border Monitoring Working Group in the conduct of the Illicit Trafficking Radiation Assessment Program (ITRAP+10) test campaign.

- The ITRAP+10 effort demonstrates a crucial facet of nuclear detection as outlined in the IAEA Nuclear Security Series, namely the evaluation of nuclear and radiological detection technologies against a set of common performance goals. Over the past three years, this international partnership tested about 70 different models of detection and identification equipment against international

guidance and standards. Now that testing has been completed, we pledge to share the findings of this test campaign to inform, as appropriate, future revisions to the IAEA Nuclear Security Series and other relevant international standards. Furthermore, we intend to make available scientific and technical data on commercially available detection

systems with the international community with the aim of documenting detection instrument capabilities, exemplifying proper usage and deployment, and promoting new research and development efforts.

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Joint Statement by the United States, Belgium, France, Germany, and South Korea on Multinational Cooperation on High-Density Low-Enriched Uranium Fuel Development

March 25, 2014

Belgium, France, Germany, the Republic of Korea and the United States, the parties to this joint statement recognize that the ultimate goal of nuclear security is advanced by minimizing highly-enriched uranium (HEU) in civilian use, which is affirmed in the Washington and Seoul Summit Communiqués and is also a key issue on the agenda of the 2014 Nuclear Security Summit.

In continuation of the Joint Statement on Quadrilateral Cooperation on High-density Low-enriched Uranium Fuel Production made in Seoul, the original four parties plus Germany are working together to develop and qualify new high-density low-enriched uranium LEU fuels as part of an effort to convert research reactors from HEU fuel to LEU fuel.

High performance research reactors use significant quantities of HEU each year and require unique and complex fuels to operate. The five parties are pooling their expertise and resources to develop, qualify and fabricate new high-density LEU fuels with the ultimate goal of converting the remaining high performance research reactors in the world to operate on these fuels when technically and economically feasible.

The parties are focusing their efforts on uranium molybdenum (UMo), both as a monolithic fuel foil and as UMo powder dispersed in an aluminium matrix. In the last years the parties

have had particular yet not exclusive technical foci. Europe (Belgium, France and Germany) manufactured and tested in-pile full-scale fuel plates based on coated UMo powder technology; the United States manufactured and tested in-pile full-scale fuel plates based on coated monolithic UMo technology. As laid out in the 2012 Joint Statement, the Republic of Korea manufactured and made available to the community UMo powders based on advanced atomization technology, and intends to continue producing and providing such UMo powders for further qualification tests of new high-density dispersion fuel.

We express our shared confidence that this international cooperation among Belgium, France, Germany, the Republic of Korea and the United States to develop high density LEU fuels will be strengthened by intensified and coordinated collaboration that will contribute directly to the ultimate goal of minimizing HEU in civilian use. Cooperation and support from the international community are crucial for making available LEU fuel that is suitable for high performance research reactors, and we agree to share the benefits of all technology developed together in this joint effort, with conditions to be set out in due time.

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