

**THE PROPOSED U.S.-UAE AGREEMENT ON  
CIVILIAN NUCLEAR COOPERATION**

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**HEARING**

BEFORE THE

SUBCOMMITTEE ON NEAR EASTERN AND  
SOUTH AND CENTRAL ASIAN AFFAIRS

OF THE

COMMITTEE ON FOREIGN RELATIONS  
UNITED STATES SENATE

ONE HUNDRED ELEVENTH CONGRESS

FIRST SESSION

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OCTOBER 7, 2009  
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## **THE PROPOSED U.S.-UAE AGREEMENT ON CIVILIAN NUCLEAR COOPERATION**

**WEDNESDAY, OCTOBER 7, 2009**

U.S. SENATE,  
SUBCOMMITTEE ON NEAR EASTERN AND  
SOUTH AND CENTRAL ASIAN AFFAIRS,  
COMMITTEE ON FOREIGN RELATIONS,  
*Washington, DC.*

The subcommittee met, pursuant to notice, at 10 a.m., in room SD-419, Dirksen Senate Office Building, Hon. Robert P. Casey, Jr. (chairman of the subcommittee) presiding.

Present: Senators Casey, Feingold, Kaufman, and Risch.

### **OPENING STATEMENT OF HON. ROBERT P. CASEY, JR., U.S. SENATOR FROM PENNSYLVANIA**

Senator CASEY. Thank you very much for being here this morning. The hearing of the Committee on Foreign Relations' Subcommittee on Near Eastern and South and Central Asian Affairs will now come to order.

In 2 weeks time, the U.S.-UAE 123 Nuclear Cooperation Agreement could go into effect unless Congress takes action to block its inception. Today, the subcommittee meets to assess the ramifications, both positive and negative, that this Nuclear Cooperation Agreement may have on future agreements, the international system, and the long-term security of the United States and our allies.

As many of you know, since 1952, more than 2,000 bilateral civilian nuclear cooperation agreements have been signed and implemented worldwide. Nuclear cooperation agreements inherently include certain opportunities and risks—the U.S.-UAE Nuclear Cooperation Agreement before us today is no different. However, what has changed over the past 50 years are the stipulations and standards that those receiving technological and materiel nuclear assistance must uphold in the execution of these nuclear cooperation agreements.

The U.S.-UAE Nuclear Cooperation Agreement has been hailed as the strongest bilateral nuclear cooperation agreement that the United States has ever concluded.

The UAE, already a partner to the Nuclear Non-Proliferation Treaty, has voluntarily signed and pledged—signed and pledged—to accede to the International Atomic Energy Agency's—as we know, is the IAEA—the UAE has acceded to the IAEA's Additional Protocol, which allows for short-notice inspections of any facility and remote monitoring of declared facilities.

The United States, the IAEA, and the U.N. Security Council all agree that the Additional Protocol should be universally adopted; and for the first time in a bilateral U.S. agreement, the United States and the UAE have agreed that the United States will not export nuclear technology until the UAE brings its Additional Protocol into force.

The UAE is now participating in several U.S.-led initiatives to strengthen export controls. More importantly, the UAE has declared that it will forgo all domestic enrichment and reprocessing of nuclear material in its territory. This last provision is not merely a pledge, but it is explicitly prohibited in Article 7 of the agreement.

And like other nuclear cooperation agreements, the United States may terminate the deal and require the return of all nuclear materiel and technology if the UAE fails to adhere to any aspect of agreement, especially if it acquires sensitive nuclear technology related to enrichment or reprocessing.

While this may be the strongest nuclear cooperation agreement the United States has ever concluded, I also recognize that its inception at this moment in history gives some pause. At issue is the UAE's legal right to obtain nuclear technology for peaceful purposes, as enshrined in the nuclear technology—I'm sorry, as enshrined in the Nuclear Non-Proliferation Treaty, versus the risk incurred by introducing nuclear technology in the world's most volatile region.

The ongoing controversy regarding Iran's nuclear program is also relevant here. With the largest oil reserves in the world, there's no doubt that Iran's neighbors seriously take Tehran's nuclear ambitions into their nuclear security and energy calculations. Because some civilian nuclear technology can be used for a military nuclear program, there are concerns—there are also concerns that the spread of civilian nuclear programs to the region may spark a nuclear arms race. While there is a possibility that a proliferation domino effect could occur in the Middle East, this prospect could happen even without—even without—U.S. involvement.

On January 16, 2008, France and the UAE signed a nuclear cooperation agreement. The UAE is also pursuing nuclear cooperation agreements with Russia, Germany, China, the U.K., Japan, and South Korea. In light of other nuclear suppliers moving forward with their agreements, the U.S.-UAE Nuclear Cooperation Agreement could help reshape the standard by which nuclear agreements are conducted in a world going through a nuclear energy renaissance.

This agreement may very well be the model—the model—needed to conclude civilian nuclear cooperation agreements with Middle Eastern countries and set on obtaining this technology. It could also serve as a new standard operating procedure for members of the nuclear suppliers group and other export control regimes.

I look forward to hearing from the witnesses on the regional implications of the UAE 123 Agreement and how the agreement can possibly serve as a model for future such agreements.

The UAE's willingness to explicitly forswear uranium enrichment and spent-fuel reprocessing for plutonium production is a legally binding standard—a legally binding standard—that we should seek

in all nuclear cooperation agreements. On this point, a few of my colleagues in the Senate and the House have expressed their concern that the agreement does not do enough to ensure that the UAE strengthen its export controls, and we'll be talking about that today. Members of the administration have argued that strengthening one's export controls must be implemented over time and that the UAE has taken significant steps to rectify this problem. As we discuss this nuclear agreement today, it will be helpful to know what steps the UAE has taken to strengthen its export controls and how the United States will continue to leverage its relationship with the UAE to reduce the illicit trafficking of goods through its territory.

President Obama continues to express his desire for a nuclear-weapons-free world. We know that a nuclear-weapons-free world does not mean a nuclear-energy-free world. Nonproliferation is not about creating rules that prohibit the peaceful use of nuclear energy, but rather nonproliferation is about setting rules based on the current threat environment to prevent the irresponsible use—the irresponsible use—of nuclear technology. To say we will not support the peaceful use of nuclear energy by the UAE could support the false Iranian charges that we seek to prevent access to nuclear technology in Muslim nations—or to Muslim nations, I should say.

This agreement sends a message that the United States is willing to deal with an array of countries on the basis of their commitment to peaceful nuclear energy and compliance with international norms and safeguards. Therefore, I believe the United States must be a leader, not only on nonproliferation, but on how to use nuclear energy responsibly. Energy insecurity and climate change are problems that will continue to drive nuclear energy production. The question before us today is whether or not this nuclear cooperation agreement provides the United States the opportunity to start reshaping nonproliferation norms in an era when countries are seeking energy diversification and hedging against external security threats.

We are pleased to have an excellent group of witnesses today to explain the dimensions of this nuclear cooperation agreement and its effect on nonproliferation regimes as more nations explore the need for civilian nuclear programs. Each of our witnesses has more than 20 years experience in either arms control or Middle East policy.

Our first panel features the Honorable Vann Van Diepen, the Acting Assistant Secretary of State for International Security and Nonproliferation. He is joined by the Honorable Janet Sanderson, the Deputy Assistant Secretary for Near Eastern Affairs, as well as, today, the Idaho National Laboratory Deputy Associate Laboratory Director for Nuclear Science and Technology, Harold McFarlane. I'm sure that their testimony will provide insights into this nuclear cooperation agreement and how it can serve as a model for future agreements.

I want to welcome all of our witnesses and commend them for their work, and thank them for their willingness to appear today.

And with that, let me turn to our ranking member, Senator Risch, for any opening statement that he might have.

**OPENING STATEMENT OF HON. JAMES E. RISCH,  
U.S. SENATOR FROM IDAHO**

Senator RISCH. Senator Casey, thank you very much.

First of all, let me say that I had the honor and privilege of traveling in the UAE this spring. I met with the sheikh in Dubai, and numerous government officials there, and I can't tell you how impressed I was with, not only the commitment, but the sincerity of the people in the UAE to pursue goals that are shared both by the UAE and by this country, as far as the use of nuclear energy for peaceful purposes. I was so impressed with their commitment and their sincerity to enter into negotiations whereby nuclear power would be used and they would forsake the enrichment.

Having said that, I want to say, Senator Casey, thank you so much for holding this very important hearing. And I want to thank the State Department witnesses, also, who are here to testify. I want to welcome Dr. McFarlane, from the great State of Idaho. I've had the honor and privilege of working with Dr. McFarlane, both when I was Governor of the State of Idaho, now as United States Senator, and he is certainly a preeminent expert in these areas that we're going to talk about today.

As we go forward—and, Senator Casey, as you mentioned—the agreement with the UAE could very well be a model used, not only in the region, but around the world, for the development of nuclear energy, which will be important to us as we strive to put less carbon into the atmosphere, and as many of the other 200 countries in the world strive to convert to nuclear energy. And the United States is well-poised to help. The United States is well-poised to take the economic advantage that's available to us to export that type of technology. And we, in Idaho, are excited about, and doing our best to encourage, the establishment and construction of a domestic enrichment plant, known as the Eagle Rock facility, in Bonneville County, ID.

So, with that, I look forward to hearing all of you testify. And again, thank you, Senator Casey.

Senator CASEY. Thank you, Senator Risch. And we're always happy to have more Idaho talent in the Nation's Capital. I just hope the trip here wasn't too long for the Doctor.

But, thank you very much, Senator Risch, and thank you for your staff's help, as well, in arranging and working on this hearing.

I know that we will have other Senators joining us during the question period, but I thought what we would do now is go to our witnesses' opening statements.

Dr. McFarlane, we'll start with you and move from left to right.

If you could keep your statements around 7 minutes, I have a gavel, but I'm hesitant to use it on witnesses. [Laughter.]

We'll have a joint effort on the gavel. But, as best you can. Your full statements, if they're longer than that and you want to highlight or summarize them, will be made part of the record. So, without asking for that, we're making sure that you know you can have that as part of the record.

So, Dr. McFarlane, why don't we start with you, and then we'll conclude with our witnesses and get to questions.

**STATEMENT OF DR. HAROLD McFARLANE, CHAIRMAN OF THE INTERNATIONAL NUCLEAR ENERGY ACADEMY, FORMER PRESIDENT OF THE AMERICAN NUCLEAR SOCIETY, AND DEPUTY ASSOCIATE LABORATORY DIRECTOR FOR NUCLEAR SCIENCE AND TECHNOLOGY, IDAHO NATIONAL LABORATORY, IDAHO FALLS, ID**

Dr. McFARLANE. Well, Chairman Casey and Ranking Member Risch, thank you for this opportunity today to testify before the subcommittee on this U.S.-UAE agreement for peaceful nuclear cooperation.

I believe that this agreement will set a positive example for the more than 30 countries that, for the first time, are considering nuclear energy as a strategic component for meeting their projected growing demand for reliable, clean, baseload electricity. It will also establish expectations of strong nonproliferation assurance for other nations with nuclear energy ambitions in the region. Given the ongoing challenges the international community has faced with Iran, the UAE's voluntary agreement to forgo the sensitive technologies of uranium enrichment and reprocessing while applying IAEA safeguards to all nuclear activities will usher in a landmark standard of nonproliferation, safety, and transparency in the Middle East and other parts of the world.

The UAE has expressed a willingness to make the investment in capital, time, and human resources that is necessary to implement a responsible nuclear energy program. The UAE has already contributed \$10 million toward an international fuel bank that will help create a low-enriched uranium reserve as insurance against supply disruptions in the global uranium market. Preparation for irreplaceable U.S. cooperation and advice in developing a robust regulatory safety framework has begun with initial discussions about arrangements for technical exchanges.

For 60 years, aspiring and established nuclear energy states have turned to the U.S. education system to train their future leaders in nuclear research, regulation, and commercialization. This is a critical role that the United States can serve in nurturing the UAE's development of an educational framework for the nuclear workforce that it will need to create and sustain a safe and reliable nuclear energy infrastructure.

Among the countries with existing peaceful nuclear energy programs, I have found a consistently high level of desire for U.S. engagement and leadership in international nuclear matters, an interest that has been sustained through periods when the U.S. nuclear energy policy was less defined. The cooperation agreement with the UAE sends a strong signal that the United States is engaging with clear policy objectives for nonproliferation, safety, and responsible international expansions of the benefits of clean nuclear energy.

This action will have positive impacts beyond this specific agreement. Failure to act would be detrimental to U.S. nonproliferation and economic objectives. It has been estimated that the UAE will spend some \$40 billion over the next few years to create and operate their nuclear energy supply system. Under the umbrella of the 123 Agreement, U.S. industry will be able to compete for some of that business, with a high expectation of success. Although some

U.S. firms are currently providing evaluation and advisory services to the UAE without a nuclear cooperation agreement in place, the large supplier contracts will depend upon this agreement.

Given this agreement's affirmation of U.S. policy objectives and its apparently broad support from all branches of government, the resulting creation of thousands of high-quality U.S. jobs will be a well-earned outcome.

The Department of Energy's national laboratories provide an unparalleled technical resource that can be called upon to assure that terms of this agreement are effectively implemented and monitored. The national labs work closely with the International Atomic Energy Agency to develop and implement effective compliance monitoring technology. For example, Los Alamos took the lead in designing and testing equipment for assuring safeguards compliance in the soon-to-be-commissioned Rokkasho Mura reprocessing plant in Japan. Oak Ridge has helped return highly enriched uranium from areas of the world where it is no longer—has a viable use. Oregon and Idaho have developed low-enriched research reactor fuel to convert both foreign and domestic research reactors from high-enriched uranium without any noticeable loss of capability.

National laboratory and Department of Energy personnel also work with the IAEA to develop resource information on the complex institutional and technical framework needed by nations with emerging peaceful nuclear energy ambitions.

National laboratories work together with their industry, academia, and regulatory counterparts on harmonizing international nuclear safety standards with the IAEA and other international organizations, such as the Organization for Economic Cooperation and Development/Nuclear Energy Agency and the Generation-IV International Forum.

National laboratories, universities, and the nuclear industry have a large cadre of personnel who actively participate in international professional organizations. This type of unofficial engagement provides additional insight into the ambitions of other countries while projecting our safety and nonproliferation values in an effective and positive venue.

Last year, a UAE representative with a nuclear engineering degree from Perdue University explained their approach to developing nuclear energy to a meeting of the American Nuclear Society. In a healthy, compliant nuclear program, we would expect to see this type of engagement by the UAE increase and be expanded to include active participation in other relevant organizations, such as WANO, the World Organization for Nuclear Operators.

In summary, my 37 years in national and international nuclear energy arenas leads me to support the agreement for cooperation between the Government of the United Arab Emirates and the Government of the United States of America concerning peaceful uses of nuclear energy. My international experience has convinced me that U.S. engagement and leadership are effective tools for positively influencing nuclear programs abroad. In the case of the UAE, our assurance of an international nuclear fuel supply in exchange for their renunciation of sensitive nuclear technologies reinforces that conviction.

This concludes my statement, and I'd be happy to take any questions that you have.

[The prepared statement of Dr. McFarlane follows:]

PREPARED STATEMENT OF DR. HAROLD MCFARLANE, CHAIRMAN, INTERNATIONAL NUCLEAR ENERGY ACADEMY; FORMER PRESIDENT OF THE AMERICAN NUCLEAR SOCIETY; AND DEPUTY ASSOCIATE LABORATORY DIRECTOR FOR NUCLEAR SCIENCE AND TECHNOLOGY, IDAHO NATIONAL LABORATORY, IDAHO FALLS, ID

Chairman Casey, Ranking Member Risch, and members of the subcommittee, thank you for this opportunity to testify today before the Senate Foreign Relations Committee, Subcommittee on Near Eastern and South and Central Asian Affairs, on the U.S.–UAE Agreement for Peaceful Nuclear Cooperation. I believe that this agreement will set a positive example for the more than 30 countries that for the first time are considering nuclear energy as a strategic component for meeting their projected growing demand for reliable, clean baseload electricity. It will also establish expectations of strong nonproliferation assurance for other nations with nuclear energy ambitions in the region. Given the ongoing challenges the international community has faced with Iran, the UAE's voluntary agreement to forgo the sensitive technologies of uranium enrichment and reprocessing while applying IAEA safeguards to all nuclear activities will usher in a landmark standard of nonproliferation and safety transparency in the Middle East and other parts of the world.

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National laboratories and Department of Energy personnel also work with the IAEA to develop resource information on the complex institutional and technical framework needed by nations with emerging peaceful nuclear energy ambitions. National laboratories also work together with their industry, academia, and regu-

latory counterparts on harmonizing international nuclear safety standards with the IAEA and other international organizations such as the Organization for Economic Cooperation and Development/Nuclear Energy Agency and the Generation-IV International Forum.

National laboratories, universities, and the nuclear industry have a large cadre of nuclear personnel who actively participate in international professional organizations. This type of unofficial engagement provides additional insight into the ambitions of other countries while projecting our safety and nonproliferation values in an effective and positive venue. Last year a UAE representative, with a nuclear engineering degree from Purdue University, explained the UAE's approach to developing nuclear energy to a meeting of the American Nuclear Society. In a healthy, compliant nuclear program we would expect to see this type of engagement by the UAE increase and be expanded to include active participation in other relevant organizations such as WANO, the World Organization of Nuclear Operators.

In summary, my 37 years in national and international nuclear energy arenas leads me to support the Agreement for Cooperation between the Government of the United Arab Emirates and the Government of the United States of America Concerning Peaceful Uses of Nuclear Energy. My international experience has convinced me that U.S. engagement and leadership are effective tools for positively influencing nuclear programs abroad. In the case of the UAE, our assurance of an international nuclear fuel supply in exchange for their renunciation of sensitive nuclear technologies reinforces that conviction.

Senator CASEY. Doctor, thank you very much.  
Ambassador Sanderson.

**STATEMENT OF HON. JANET SANDERSON, DEPUTY ASSISTANT  
SECRETARY FOR NEAR EASTERN AFFAIRS, DEPARTMENT OF  
STATE, WASHINGTON, DC**

Ambassador SANDERSON. Thank you very much, Mr. Chairman.

Chairman Casey, Ranking Member Risch, members of the subcommittee, I want to thank you very much for the opportunity to testify today.

Mr. Chairman, the proposed agreement under review today should be seen in the context of the close and very important bilateral relationship that has developed between the United States and the United Arab Emirates in the past several years. The United States and the UAE have established strong partnership, and we share a common vision for a secure, stable, and prosperous Middle East.

The UAE is a strong supporter of the Palestinian authority. It was the first Arab State to send an ambassador to Baghdad and to support Iraq's engagement and reintegration into the neighborhood. It has also committed to cancel \$7 billion of Iraqi debt.

The United States and the UAE are working closely to bring peace and stability to Afghanistan, where the UAE has deployed combat troops. The UAE provides the United States and coalition forces access to its ports and territories, as well as other critical logistical assistance, and it is working vigorously to support Pakistan, pledging \$300 million in assistance at the Tokyo Conference in April 2009.

The UAE, we believe, has been a responsible and reliable partner of energy to world markets, with the sustained involvement of U.S. companies in the UAE oil and gas sector for more than 40 years. The UAE has made sizeable investments in the development of renewable energy, and, on June 29 of this year, was selected to host the headquarters of the International Renewable Energy Agency, also known as IRENA.

The proposed agreement on peaceful nuclear energy further strengthens cooperation between our two countries. In addition, as Acting Assistant Secretary Van Diepen will note, the agreement is a significant nonproliferation achievement.

Mr. Chairman, in sum, the proposed agreement under review today should be seen in the context of our expanding and very close bilateral relationship with the United Arab Emirates. By signing this agreement, the United States and the UAE will continue to strengthen this already vibrant and multifaceted relationship, and we believe that the proposed agreement deserves the support of Congress.

Chairman Casey, Ranking Member Risch, thank you very much for the opportunity to testify in support of this groundbreaking agreement. I look forward to your questions.

Senator CASEY. Thank you, Ambassador Sanderson.

Mr. Van Diepen.

**STATEMENT OF VANN VAN DIEPEN, ACTING ASSISTANT SECRETARY FOR INTERNATIONAL SECURITY AND NONPROLIFERATION, DEPARTMENT OF STATE, WASHINGTON, DC**

Mr. VAN DIEPEN. Chairman Casey, Ranking Member Risch, members of the subcommittee, I want to thank you for this opportunity to testify today in support of the proposed U.S.–UAE agreement for peaceful nuclear cooperation. And thank you for agreeing that our formal testimony will be incorporated into the record.

This proposed agreement is a significant nonproliferation achievement. And, as Ambassador Sanderson noted, it represents a further strengthening of cooperation between the United States and the UAE.

For the first time in such an agreement, a U.S. partner has voluntarily agreed to forgo enrichment and reprocessing. The proposed agreement also provides, for the first time, that prior to U.S. licensing of exports for nuclear material, equipment, components, or technology, the UAE shall bring into force the Additional Protocol to its safeguards agreement. It also allows the United States to require the removal of special fissionable material from the UAE and its transfer either to the United States or a third country if exceptional circumstances of concern, from a nonproliferation standpoint, so require.

The UAE's expressed commitment not to pursue enrichment and reprocessing capabilities represents a marked contrast to Iran, which has failed to comply with its international obligations and seeks indigenous nuclear capabilities unnecessary for civil nuclear power, but critical for the development of nuclear weapons.

It is well known that the UAE has been a transshipment hub for sensitive items, and was used by the A.Q. Khan network for some of its activities. In the past several years, however, the UAE has taken critical steps to address this problem. It helped the United States expose and shut down the Khan network by taking actions against firms and financial activities on its territory. The UAE has declared it the high—at the highest levels, that its territory should not be a source of proliferation in the future.

More work remains to be done to implement this decision, but the UAE has made considerable progress. Just a few days ago, the

UAE adopted a civil nuclear energy law that domestically prohibits uranium enrichment, creates a Federal authority for nuclear regulation, and develops a nuclear material licensing and control system. It is taking steps to implement U.N. Security Council resolutions against North Korea and Iran. It has taken actions to prevent the abuse of its financial system by proliferators. It has worked closely with the United States to prevent the diversion of U.S.-origin goods and technology through its territories. It is taking action against companies engaged in proliferation-related activities, and it has indicated that it has stopped shipments of WMD-related goods to countries of concern.

The United States is committed to working with the UAE on further steps toward establishing a comprehensive export control regime and effective export control practices. Earlier this year we held our annual bilateral counterproliferation task force, in which we discussed additional ways to address proliferation issues.

We are assisting the UAE through the Department of State-coordinated Export Control and Related Border Security Program, as well as other U.S. Government programs, in establishing a comprehensive export control regime and effective export control practices. While the UAE still has work to do, we believe that it is taking the necessary steps to implement an effective export control system. As a result, the UAE has become one of our strongest nonproliferation partners. It genuinely shares our concern over the proliferation of WMD, their delivery systems, and related materials, as well as over WMD financing.

In closing, I would like to ask the committee and the Congress to consider the proposed agreement on its own merits. It is in some ways a groundbreaking agreement. It contains all the necessary nonproliferation conditions and controls that Congress has written into law. It does not commit either party to transfer any nuclear commodities, technologies, or services to the other. Those are decisions for the future and will be handled only on a case-by-case basis according to the usual stringent U.S. licensing practices.

As President Obama has formally determined, the agreement will promote, and not constitute unreasonable risk to, the common defense and security. By signing this agreement, the United States and the UAE have taken an important step in building a long and mutually beneficial partnership to enhance nonproliferation and energy security in the region. The proposed agreement deserves the support of the Congress.

[The joint prepared statement of Acting Assistant Secretary Van Diepen and Deputy Assistant Secretary Janet Sanderson follows:]

JOINT PREPARED STATEMENT OF ACTING ASSISTANT SECRETARY VANN H. VAN DIEPEN AND DEPUTY ASSISTANT SECRETARY JANET SANDERSON, DEPARTMENT OF STATE, WASHINGTON, DC

Mr. Chairman, Ranking Member Risch, members of the committee, thank you for this opportunity to testify today before the Senate Foreign Relations Committee in support of the proposed U.S.-UAE Agreement for Peaceful Nuclear Cooperation, which President Obama submitted to the Congress on May 21 for review pursuant to section 123 of the Atomic Energy Act of 1954, as amended. As shown by last month's visit of Sheikh Mohammed bin Zayed, the Crown Prince of Abu Dhabi and Deputy Supreme Commander of the United Arab Emirates Armed Forces to Washington to see President Obama and other officials, this important agreement reinforces a particularly strong and mutually beneficial political, security, and economic

bilateral relationship. The UAE is a valued partner, cooperating with us on issues related to the Palestinian Authority, Pakistan, Afghanistan, Iraq, and Iran.

In connection with approving the proposed agreement and authorizing its execution, the President made the determination required by section 123 of the Atomic Energy Act that performance of the proposed agreement will promote, and will not constitute an unreasonable risk to, the common defense and security.

Our purpose today is to discuss with the committee the principal factors that the President considered before making his statutory determination, and to urge the Senate to give the proposed agreement favorable consideration.

#### A GROUNDBREAKING ACHIEVEMENT

Let us say at the outset that the administration recognizes the nonproliferation value of this unique agreement. The UAE has made a principled decision that it will abide by the highest nonproliferation standards. The U.S.–UAE 123 Agreement recognizes these commitments and achievements of the Government of the United Arab Emirates and provides the basis to expand our existing cooperation into areas of peaceful nuclear energy.

Consistent with the UAE's commitments to the highest nonproliferation standards, the proposed agreement contains some unprecedented features for agreements of this type. For the first time in an agreement of this type, the UAE has voluntarily agreed to forgo uranium enrichment and reprocessing of spent fuel. This will supplement in a legally binding international agreement the UAE's recent pioneering law to prohibit uranium enrichment and reprocessing of spent fuel. Additionally, for the first time, the proposed agreement provides that prior to U.S. licensing of exports of nuclear material, equipment, components, or technology pursuant to the agreement, the UAE shall bring into force the Additional Protocol to its safeguards agreement with the IAEA. The agreement also allows for the United States to remove special fissionable material subject to the agreement from the UAE either to the United States or to a third country if exceptional circumstances of concern from a nonproliferation standpoint so require.

The proposed agreement has a term of 30 years and permits the transfer of nuclear material, equipment (including reactors), and components for civil nuclear research and civil nuclear power production subject to subsequent individual export licensing. It does not permit transfers of Restricted Data, sensitive nuclear technology, sensitive nuclear facilities, or major critical components of such facilities. It limits the special fissionable material that may be transferred under the agreement to low enriched uranium except for small amounts of special fissionable material for use as samples, standards, detectors, targets or other purposes agreed by the Parties. If the agreement is terminated, key nonproliferation conditions and controls will continue with respect to material, equipment, and components subject to the agreement.

In sum, the robust nonproliferation features of the UAE 123 Agreement are a significant achievement. The UAE is an example of a country that has concluded that indigenous fuel cycle capabilities are not needed to fully enjoy the benefits of civil nuclear energy.

Mr. Chairman, please let us expand on some of the key points I have just made.

Once the proposed agreement enters into force, it will establish the necessary legal framework for the United States and the UAE to engage in subsequent, individually authorized forms of cooperation in the development of nuclear energy for peaceful purposes to assist the UAE in meeting its growing energy demand. In addition to being indicative of our strong partnership with the UAE, the proposed agreement is a tangible expression of the United States desire to cooperate with states in the Middle East, and elsewhere, that want to develop peaceful nuclear power in a manner consistent with the highest nonproliferation, safety and security standards.

#### THE UAE'S STRONG NONPROLIFERATION CREDENTIALS

We have spoken of the UAE's commitment to the highest nonproliferation standards. We shall summarize the UAE's strong nonproliferation credentials in a checklist form:

- The UAE acceded to the Nuclear Nonproliferation Treaty (NPT) on September 26, 1995, and its IAEA Safeguards Agreement entered into force on October 9, 2003. It has signed the Additional Protocol to its Safeguards Agreement with the IAEA and is committed to bringing it into force.
- The UAE ratified the Convention on the Physical Protection of Nuclear Material on November 15, 2003, and deposited its instrument of acceptance for the 2005 Amendment strengthening the Convention on July 31, 2009.

- It acceded to the International Convention on the Suppression of Acts of Nuclear Terrorism on January 10, 2008.
- The UAE is implementing UNSC 1540—a resolution that, among other things, requires U.N. Member States to take and enforce effective measures to establish domestic controls to prevent the proliferation of weapons of mass destruction, their means of delivery and related materials.
- UAE Federal Law 6 issued in 2009 prohibits uranium enrichment and spent fuel reprocessing, creates a Federal Authority for Nuclear Regulation, and develops a nuclear material licensing and control system.
- UAE Federal Law 13 issued in 2007 provides a strong basis on which to build an effective export control system for commodities that are subject to import and export control procedures.
- The UAE actively participates in the Global Initiative to Combat Nuclear Terrorism, the Proliferation Security Initiative, and the Container Security Initiative.
- The UAE is a key counterterrorism partner and actively works to combat money laundering and terrorist financing.
- The UAE has stated it intends to implement export and import control rules for nuclear and nuclear-related equipment and technology in strict accordance with the Nuclear Suppliers Group Guidelines for nuclear transfers. This will enhance the UAE's current basis for an export control system and assist its government in preventing illicit transshipments of sensitive nuclear technologies through the UAE.

In March 2008, the United Arab Emirates published its policy for the development of nuclear energy in a report entitled, "Policy of the United Arab Emirates on the Evaluation and Potential Development of Peaceful Nuclear Energy." In it, the UAE committed itself inter alia to "pursuing the highest standards of nonproliferation" and "the highest standards of safety and security." In signing this agreement, the UAE has demonstrated its commitment to develop civil nuclear energy in a responsible way, in full conformity with its nonproliferation commitments and obligations. U.S. cooperation with the UAE will also serve as a distinct counterpoint to those countries that have chosen a different path, in particular Iran.

The UAE's commitment not to pursue enrichment and reprocessing capabilities is in marked contrast to Iran, which has continued to defy its international obligations and is continuing to develop technical capabilities that could be applied to nuclear weapons development.

The UAE recognizes the value of international cooperation for establishing a nuclear power program as well as the need to develop domestic human resources. The UAE is expected to hire a foreign consortium to construct, operate, and perhaps partially own its first nuclear powerplants while local expertise is developed. U.S. industry is poised to assist with the development of a nuclear power program in the UAE, but the Agreement for Cooperation is necessary to allow its full participation. U.S. technology in this area is leading-edge, and the United States anticipates that the UAE will give it strong consideration as the UAE moves forward in implementing its plans.

#### U.S. PRIOR APPROVAL FOR RETRANSFERS

The Agreed Minute to the proposed agreement provides U.S. prior approval for retransfers by the UAE of irradiated nuclear material subject to France and the United Kingdom, if consistent with their respective policies, laws, and regulations. Such retransfers would provide the UAE opportunities for management of its spent fuel, subject to specified conditions, including that prior agreement between the United States and the UAE is required for the transfer to the UAE of any special fissionable material recovered from any such reprocessing. Plutonium recovered from reprocessing could not be returned under the agreement (with the exception of small quantities for the uses described above, but even then only with the further agreement of the Parties). The transferred material would also have to be held within the European Atomic Energy Community subject to the Agreement for Cooperation in the Peaceful Uses of Nuclear Energy between the United States of America and the European Atomic Energy Community (EURATOM).

In view of the fact that this retransfer consent would constitute a subsequent arrangement under the Act if agreed to separately from the proposed agreement, the Secretary of State and the Secretary of Energy have ensured that the advance approval provisions meet the applicable requirements of Section 131 of the Atomic Energy Act. Specifically, they have concluded that U.S. advance approval for retransfer of nuclear material for reprocessing or storage contained in the Agreed Minute to the proposed agreement is not inimical to the common defense and secu-

ity. An analysis of the advance approval given in the Agreed Minute is contained in the Nuclear Proliferation Assessment Statement (NPAS) submitted to Congress with the agreement.

#### CONCLUSION

For all the above reasons we would ask the subcommittee, and the Senate, to consider the proposed agreement on its merits. It is, in some ways, a groundbreaking agreement. It contains all the necessary nonproliferation conditions and controls that Congress has written into law. It does not commit either Party to transfer any nuclear commodities, technology or services to the other. Those are decisions for the future and will be handled on a case-by-case basis according to the usual stringent U.S. licensing procedures. As President Obama determined, the agreement will promote, and not constitute an unreasonable risk to, the common defense and security. By signing this agreement, the United States and the UAE have taken an important step in building a long and mutually beneficial partnership to enhance nonproliferation and energy security in the region. The proposed agreement deserves the support of the Congress.

Mr. Chairman, members of the committee, thank you. We look forward to your questions.

Senator CASEY. Thanks very much.

Let me start. We'll do 7-minute rounds, and probably several rounds.

Let me start with both of our State Department witnesses with questions from two different areas. First of all, if you're making a determination about something as grave and as serious as this, obviously there's a cost-benefit analysis that has to be undertaken. And I know both the Obama administration as well as the Bush administration engaged in some level of cost-benefit analysis to make determinations about how to proceed here. I'd ask you first to make the case for this agreement, in terms of our own national security interests, in particular, as well as concerns beyond the scope of our own security to delve into the concerns that we have about nonproliferation and what that means for the rest of the world. Make the case in terms of proliferation and to use this agreement to leverage other strategies.

And then I want to ask you some questions about major concerns that I and others have about another aspect of the agreement.

Mr. VAN DIEPEN. Thank you, Mr. Chairman. I think that it's a pretty straightforward thing, from our standpoint.

As noted in your opening statement and in my statement, this agreement has some very important nonproliferation features—the requirement to accede to the Additional Protocol, forgoing enrichment and reprocessing technology—that not only handles well the nonproliferation issues involving the UAE, but serves as a positive example for the responsible development of civil nuclear power throughout the Middle East. And it underscores our objective of limiting the spread of proliferation-sensitive enrichment and reprocessing capabilities in favor of promoting reliable international nuclear fuel supply arrangements.

In addition, as Ambassador Sanderson noted, this agreement reinforces the already strong relationship between the United States and the UAE, including on nonproliferation, and including on nonproliferation issues involving not just the UAE, but regionally and globally, such as the Proliferation Security Initiative and the Global Initiative to Combat Nuclear Terrorism.

And then, finally, as Dr. McFarlane noted, the agreement will provide a framework for potential commercial sales of civil nuclear

commodities to the UAE by U.S. industry under agreed nonproliferation conditions and controls, good both for the United States—and again, setting the standard for safe, secure, and safeguarded peaceful nuclear cooperation that we hope countries around the world will follow.

Senator CASEY. Ambassador Sanderson, do you want to add to that, or—

Ambassador SANDERSON. I would just add that this is part and parcel of our overall relationship with the UAE, which—as I noted and I think that the Senator, during his trip to the UAE, saw first-hand—that the very cooperative and collaborative relationship that we have had over the last—I'd say the last 5 to 7 years—it's a very different place, in many ways, the UAE, than it was 25 years ago, when I was the desk officer. It's a—they are taking charge of their future. They have very seriously looked at what their energy needs will be down the road—the fact that they do not want to be totally dependent on their oil and gas resources; the fact that in 20 years or so, they're going to have their energy needs—they're going to see their energy needs almost triple—and they have decided to make a safe and secure choice, and do it within a framework which is acceptable, they believe, to their own needs as well as to the international community.

Senator CASEY. Thank you. I'll get into further aspects surrounding making the case, because one of the things we have to do here is make the case to the American people; and they're hearing a lot about proliferation issues right now, especially in the context of the controversy as it relates to Iran's nuclear program.

Let me move, in the few minutes I have left in this round, to raise an important concern that I and others have about export controls. And I know we've addressed it. I know, for example, that, in the joint testimony, you have several pages worth of examples of how the UAE has engaged—or has, I should say—strong nonproliferation credentials, and I know, on page 7, you refer, at least in two parts, two sections, to export controls.

Here's the concern. And there are a lot of ways to express it. But, the Port of Dubai is a major transshipment point for illicit goods bound for Iran. In the past, A.Q. Khan used the UAE to trade nuclear black-market goods to Iran. If this agreement goes into effect, the United States may—some would argue—may lose some of the leverage that it currently has to push the UAE to further strengthen export controls.

Tell us how you deal with that concern. And, in particular, is there a risk that entities that will use this cooperation as a cover for proliferation shipments through the UAE to other countries? Please address that question. And we may have one more before my time is up.

Mr. VAN DIEPEN. Well, on the last issue, Mr. Chairman, I don't think there's any substantial risk of any cooperation that we conduct under this agreement being misused and finding its way outside the UAE. Not only is the U.S. export control licensing system very thorough, including the potential for on-site end-use checks, and not only do we have very close intelligence coverage of nuclear-related matters, but the substantial items that we would provide to the UAE under this agreement would be under International

Atomic Energy Agency safeguards. And so, I think the complex of those various measures, taken together, would really deal pretty effectively with that possibility.

On the larger question of dealing with illicit activity going through places like Dubai, obviously, given the geographic proximity of Iran to the UAE, to a longstanding history of smuggling that goes back decades, if not centuries, in that area, it's always going to be difficult to completely control that problem. But, as Ambassador Sanderson noted, over the past several years the UAE government has taken these issues especially seriously. They've passed new export control legislation, they've been extremely cooperative with us on specific cases of problematic shipments, they've shut down companies, they've monitored problem entities, they've done a lot of concrete activity, and we are working with them to help them go the rest of the way that they need to go.

Senator CASEY. Well, I'll push you a little more on that to get more detail on those steps, but my time is up.

Senator Risch.

Senator RISCH. Thank you. Thank you, Senator.

First of all—Ambassador Sanderson and the administration generally—really, to see that the administration has reached the same conclusion, I guess, I did, personally, after my discussions there, that indeed these people are dealing with us in good faith. I mean, this is not one of these gamesmanship things, or—where they're taking us to the brink, and what have you. I mean, they are, in very good faith, wanting to do just what they're telling us they want to do, and that is develop, for the future and to meet their energy needs, this nuclear power.

As far as the proliferation issue, I think that that's one of the things that encourages me about all this, is that in our dealings with the UAE, we've really gone beyond proliferation. I think all of us in America have been rightfully consumed by the proliferation issues, because of things that happened in other countries. But, this really takes us beyond that. And indeed, the conclusion I reached, Senator Casey, in response to your question, was that yes, indeed, the trade between Iran and the UAE, long before it was the UAE or anything else, goes back, as you pointed out, centuries. But, I think that the agreement, indeed the contract, that we're going to enter into, will give us a better insight into what's happening there, and probably better control as to what's happening there, when it comes to nuclear issues.

So, that was the conclusion I reached, and I'd be interested to hear the response of the people from the State Department for that.

But, I have one minor question. I don't want this to be a stumbling block or make it appear partisan, but I noted that the negotiations were completed in November, I think, of 2008, and an agreement was signed January 15, 2009. But, then the new administration went to renegotiate, and there was a renegotiation, and a reexecution, in May 2009. And I never really did understand the reason for that, or the niceties of it. Could one of you maybe enlighten me on that? Again, I don't want to make more—I don't want to make more of this than what it is. I'm glad the agreement

is here. But, I do have little more than a curiosity as to steps to how it got here.

Mr. VAN DIEPEN. Yes, Senator. Basically, the reason for the renegotiation was to add into the agreement the provisions under which the UAE would forgo enrichment and reprocessing capability, and specifying that there would not be transfers until its Additional Protocol had entered into effect. So, the key nonproliferation features that had been noted in the chairman's statement basically were the things that we added in that renegotiation.

Senator RISCH. So, was it more procedural than substantive? Is that what you're telling me, about the add-on to the contract?

Mr. VAN DIEPEN. Well, they were very substantive, but I— you know, they weren't problematic. Maybe that's a good way to answer your question.

Senator RISCH. All right. As I close out my time here, maybe both of you from State could comment on my view that we may be better off with the agreement, when it comes to proliferation, than we would be without the agreement with the UAE.

Ambassador SANDERSON. Well, let me, if I may—let me, if I may, Senator, tell you that your sentiments, I think, have been replicated, time and time again, in dealing with the UAE. They have assured us that they want to go forward in this process in the most transparent, safe, and secure manner. And we are hopeful that this will open doors for us, in terms of our dealings with the UAE.

I must tell you that we have a very frank, useful, and collaborative dialogue on proliferation issues, on transshipment issues, on the issues that we are talking about today, with the UAE. But, I hope that this will give further context to those discussions.

Senator RISCH. Mr. Van Diepen, could you comment on that?

Mr. VAN DIEPEN. And again, just to echo what Ambassador Sanderson has said, I think that both the specific nonproliferation provisions of the agreement itself, as well as the strengthening of the overall bilateral relationship that the agreement represents, both of which will help us pursue more effectively this nonproliferation issue that we have with the UAE, and I think it'll prompt the UAE to do more, and it would also make our ability to assist them more effective.

Senator RISCH. Thank you very much.

Thank you, Mr. Chairman.

Senator CASEY. Thank you, Senator Risch.

Senator Feingold.

Senator FEINGOLD. Thank you so much, Mr. Chairman, for holding this hearing. It's an important issue that needs to be publicly debated.

There is no clear line between a civilian nuclear energy program and a nuclear weapons program. So, I think it's vital that Congress exercise its oversight power and hold hearings to carefully consider the terms and implications of every nuclear cooperation agreement that comes before us.

The United Arab Emirates and the United States have an important relationship, one that I hope will continue to strengthen. I also understand the growing energy needs that all countries face, and appreciate the interest of the UAE in seeking alternative and diversified sources of energy.

However, I do have strong concerns about expanding the use of nuclear energy, particularly in this volatile region, before we have an international regime in place to ensure that countries will not export enrichment and reprocessing technologies. And if an effective international agreement prohibiting the transferring of these technologies is not forthcoming, I think we do have to have a serious discussion about whether we should continue following the current course of promoting nuclear energy and entering into these cooperation agreements.

I am concerned that an increased reliance on nuclear energy will lead a growing number of countries to seek the ability to produce nuclear fuel. While we may receive assurances today that this is not the intent, the history of nations relying on foreign fuel supplies is not an encouraging one. We need to look no further than Iran to find a country which the United States used to provide nuclear fuel, that now insists on having its own fuel supply for what it claims are civilian purposes.

Any nation with enrichment or reprocessing capabilities poses two threats. First, it can spark what amounts to an arms race as regional adversaries seek to have their own capabilities. Second, it increases the risk that weapons-grade materials could fall into the hands of terrorists.

In the case of this particular agreement, we must also be certain that the UAE is committed to ensuring that its territory is never used again as a transit point for illicit nuclear trade. This will require ensuring that adequate export controls exist. And I want to emphasize that my concerns are obviously not just targeted at the UAE. Rather, I have serious reservations about committing to any nuclear cooperation agreement until there is an international agreement that effectively prohibits the transfer of enrichment and reprocessing technologies.

Mr. Van Diepen, I'm pleased that the UAE has promised to forgo developing enrichment or reprocessing capacity pursuant to the proposed agreement. But, since the agreement also provides for renegotiation in the event that we sign a more generous agreement with a regional neighbor, I'm curious whether we're having success in extracting similar promises from other countries. For example, are we likely to get a similar commitment from Jordan, with whom we have signed a Memorandum of Understanding?

Mr. VAN DIEPEN. Thank you, Senator. I think that—excuse me—all of these things are works in progress, and they're country-specific negotiations. But, if, in fact, this agreement goes into effect and we have a legally binding provision such as this with the UAE, it will certainly serve as an example that will make it easier for us to try and get similar provisions with other countries.

The critical thing, I think, is—more critical is the idea of coming up with whatever practical and appropriate limits we can on the spread of enrichment and reprocessing technology, which you've made a very articulate case for, than the specific form of that agreement with any specific country. With Jordan, for example, we already have a Memorandum of Understanding that contains that provision.

In terms of the UAE, in addition to the legally binding provision in this agreement, the UAE has just passed domestic legislation

that would—in a domestic legal way, would have them forgo enrichment or reprocessing capability. So, that’s another potential tool.

And in terms of your larger question about controlling exports of enrichment and reprocessing capability, again, to the extent that we have provisions in—we have commitments from countries like the UAE not to have enrichment and reprocessing at all, that then provides a safeguard in terms of any shortcomings in our ability to get controls over exports of E&R, because the UAE has committed not to import E&R from anyone, not just from the United States.

And it’s these very provisions in this UAE agreement that we think help establish another example, another method, another brick in the wall, of this overall effort of trying to get constraints on enrichment and reprocessing technology, both from the supply side, if you will, and the demand side.

Senator FEINGOLD. Thank you. When can we expect the Nuclear Suppliers Group to vote on a final agreement to limit the transfer of enrichment and reprocessing technologies? And are you optimistic that they will approve such an agreement?

Mr. VAN DIEPEN. I’m optimistic that one will ultimately be approved, but it’s going to take continued time. The couple of countries that have raised objections have raised objections of, kind of, broad sovereignty principle at very high levels that it’s going to take us some time to work around. But, these same countries are very much committed to nonproliferation, and so, I’m optimistic that we can work that through.

In terms of a time prognosis, I’m really not in a position to give one at this point.

Senator FEINGOLD. The criteria-based approach under consideration by the NSG does not appear to significantly limit the number of countries eligible to purchase enrichment and reprocessing technologies. How many countries would be eligible under this approach, and what is the administration’s position on a criteria-based approach?

Mr. VAN DIEPEN. Well, we support a criteria-based approach, in part because that’s realistically what’s achievable in the NSG, as the history of the past few years has demonstrated. But, we think that that is an effective way.

But, more importantly, beyond the specifics of the criteria, it’s important to look at the history, and there basically have been very, very, very few authorized exports, by NSG countries, of enrichment and reprocessing technology.

So, we’re already operating in an environment characterized by a high degree of constraint and restraint. And so, I think that we have to take that into consideration in working this issue.

Also, it’s important to note that the G8 countries have agreed to go ahead and abide by that not-yet-agreed NSG policy, even though it is not agreed—

Senator FEINGOLD. Let me just follow up. The UAE arguably satisfies the criteria included in past proposals, despite the potential presence of a terrorist threat within its borders. Would it trouble you if a final agreement permitted the transfer of technologies to produce weapons-grade material to countries where al-Qaeda might

operate? And how can we strengthen the potential NSG agreement to better safeguard against the risk posed by al-Qaeda?

Mr. VAN DIEPEN. Again, Senator, I think we've got to make a distinction between whatever the specific words in the agreement ultimately say and the actual behavior of Nuclear Suppliers Group countries. And again, there's a long history of a great deal of constraint and restraint by NSG countries. There's, you know, clear understanding amongst NSG countries of the sensitivity of this technology, and the fact that the United States and other countries would look askance and engage in counterpressure against any interest in selling that technology in an irresponsible way, which again, historically, has not been the case.

Senator FEINGOLD. Thank you very much.

And thank you, Mr. Chairman.

Senator CASEY. Thank you, Senator Feingold.

Senator KAUFMAN.

Senator KAUFMAN. Are there any—currently any plans for peaceful nuclear cooperation with other gulf states?

Mr. VAN DIEPEN. We've concluded Memoranda of Understanding—not 123 Agreements, Memoranda of Understandings—with a number of gulf states. The UAE is really the farthest along, in terms of their degree of interest and commitment and preparation for peaceful nuclear activity, as Dr. McFarlane noted. We don't have any concrete plans right now to engage in such activities with other countries in the gulf. But, I think, frankly, it—their processes on this are probably too early along to get to the point where that really becomes a realistic consideration.

Senator KAUFMAN. And I assume that this 123 Agreement with UAE is a model for what you'd be thinking for, for other countries?

Mr. VAN DIEPEN. Well, the words that we've been using are a "positive example," again recognizing that, once you start getting into specific negotiations with specific countries in specific contexts, you may not be able to skin the cat exactly the same way each time. But, certainly the idea that we want to have the best possible controls on enrichment and reprocessing technology will absolutely be part of the mix.

Senator KAUFMAN. Can you talk a little bit about the—I know the UAE signed an agreement with France. How is their agreement different from our agreement?

Mr. VAN DIEPEN. I'm not familiar with all the details, but, in general, it does not contain a lot of the nonproliferation protections that ours do, because many of our provisions were pursuant to United States domestic law, for which there's not a counterpart in France.

But, in terms of French policy, and in terms of the sort of commercial framework, it's not part of that envisaged commercial framework that there would be any transfers of enrichment and processing technology by France to the UAE.

Senator KAUFMAN. And I know Chairman Casey talked about the benefits—cost benefits of this, and one of them is—Is there any discussion about talking to the UAE in regard to this, about the promotion of democracy, human rights, women's rights, freedom of the press, all those issues?

Ambassador SANDERSON. Senator, if I may, I'll take that question.

Senator KAUFMAN. Sure.

Ambassador SANDERSON. Those are discussions that we have with the UAE all the time. They're part and parcel of our broader dialogue. We have not done them in specific reference to this agreement. We look at this agreement as standing alone. But as we pursue our diplomatic discussions with the UAE, we discuss a wide variety of issues, and they have a very forward-leaning young leadership in the UAE now, very determined to ensure that this country remains a modern stabilizing element in the region. And so, we are able to talk about what's next with regard to opening up the political process, what's next with regard to democratization in the region, and in the UAE in particular. It's a good dialogue, and we continue that.

Senator KAUFMAN. Thank you, Mr. Chairman.

Senator RISCH [presiding]. Thank you.

Senator Casey had to step out to cast another vote, but will be back rather quickly.

I wish Senator Feingold had remained, because I was hoping we could have a dialogue about some of the remarks that he's made.

I think—first of all, let me say that I think everyone shares the objectives that Senator Feingold stated, and that is to prevent proliferation. But I think—one of the disagreements I had was, I don't think that you can in any way compare UAE's view of using nuclear material with that of Iran's. I think that they are—you're talking about the difference between night and day, the attitude of the regime, the attitude of the people toward the United States, the attitude of using nuclear for peaceful purposes versus nonpeaceful purposes.

And I wonder, Ambassador, if you could comment on that, briefly, as far as the attitude of the two nations toward the use of nuclear material.

Ambassador SANDERSON. Senator, I would agree with you wholeheartedly. On one hand you have Iran, which has not lived up to its international obligations, has not lived up to requests from the international community to give it a sense of where Iran intends to go with its nuclear program; in fact, has not given the international community the confidence that it is not going to engage in further proliferation and development of nuclear weapons or other items.

You have, on the other hand, the UAE, that is trying to do this in a very transparent manner. It has made a conscious political decision to go with peaceful nuclear power. But, it wants to do it right. And I think that's something that the UAE leadership deserves a great deal of credit for. They are working with us very closely. They understand our concerns about proliferation, about issues related to transshipment, about issues related to terrorism. They are working very much to clean up their own system and to put into place regimes necessary to deal with those issues. But, they want to do it right. They've seen the example of Iran. And frankly, as Mr. Van Diepen said, they are offering the international community an alternative example of how to move forward on peaceful nuclear power.

Senator KAUFMAN. Senator, can I just follow up?

Senator RISCH. Yes, please.

Senator KAUFMAN. Yes, and I think that's right, and I think that's clear, and I think it's a good comment. But, I think—I know Senator Risch has raised this before—if Iran gets, and has, a nuclear weapon, and everybody in the gulf knows they have a nuclear weapon, then these attitudes about whether a country cannot develop nuclear weapons is going to become more and more important, and proliferation is going to be more of a problem.

So that, right now, I think the UAE is right where we would like them to be, but you have—I mean, I think that if Iran has a nuclear weapon, the whole gulf state situation, with all the states in the gulf state, changes. Is that a correct analysis?

Mr. VAN DIEPEN. Well, I think, to the extent that becomes a possibility, it's all the more important that we try and lock countries into the proper path now. And so, the kinds of legally binding—internationally legally binding constraints that we have in this arrangement are exactly the kind of thing we'd want to have in place to deal with that potential contingency and help us manage it better.

Senator KAUFMAN. Thank you.

Senator RISCH. Senator Kaufman and I have discussed this at length, about the fact that he—it becomes a real game-changer in region if indeed Iran does develop a nuclear weapon.

One—another comment I have about Senator Feingold's questions or—and statement—and I'm not exactly sure what he meant by this, but he said there was no bright line, or no—the line between peaceful domestic use of nuclear material, versus nonpeaceful use, was not very clear. And I'm not exactly sure where he was going with that.

But—maybe, Dr. McFarlane, you could comment on this—but it seems to me the step between highly enriched—the step making highly enriched uranium, versus simple enrichment of uranium for development of power, is indeed a very bright line that inspectors can determine quite quickly if a country is stepping over that line. Am I right or am I wrong on that, Doctor?

Dr. MCFARLANE. Senator Risch, I think, given the type of technology that UAE is going to have, which is commercial nuclear reactors with low-enriched uranium fuel, I think that's very easy, yes, to monitor and account for, and it is quite far removed from having highly enriched uranium or separated plutonium that could be used in a nuclear weapons program. So, I think there's a lot of room there. Even if we don't know exactly where the line is, we do know that the technology that they're going to have available will be quite far removed from that line. And the safeguards that should be in place, I think, will be completely effective for that.

Senator RISCH. You would agree, then, that something like that is relatively easily monitorable, if, indeed, they allow international inspectors into the country to review what's going on. Am I right or am I wrong there?

Dr. MCFARLANE. Yes, Senator Risch, you are correct. For the technology they have, it's very simple, and monitoring techniques for simply counting—it's just unit accountability—and then, there are more sophisticated techniques that are available through the

IAEA and with inspectors on the ground, so it should be very straightforward.

Senator RISCH. Thank you.

I wonder if maybe I could get each of you to comment on the—and again, I think Senator Feingold raised some very legitimate, debatable points, and one of those has to do with our participation in this. And after going there, it seemed to me—and discussing with the people in the UAE, where they want to go—it seems to me it would be very, very naive for us to believe that if we just walked away from this, the UAE would abandon their efforts to do this. It seems to me the French are ready to jump in, and other countries are ready to jump in to take advantage of a financial situation. So, it seems to me that our better place is at the table, versus being a critic of what's going on.

Could you comment on that? Mr. Van Diepen, perhaps starting with you.

Mr. VAN DIEPEN. I think that's right. In particular, given the fact that, although the agreement we have with the UAE is bilateral, it governs UAE activity across the board. And so, the UAE commitment not to possess enrichment and reprocessing technology applies not just to E&R technology it might get from the United States, but to any E&R technology from any source. Likewise the requirement that it have in force the Additional Protocol, once that protocol is in effect it will give the U.N.—give the IAEA inspection rights not just on U.S.-provided nuclear equipment, but nuclear equipment provided from any source.

And so, this bilateral agreement actually has a broad global applicability, vis-a-vis the UAE, that would be, you know, very useful in terms of dealing with the issue that you've raised.

Senator RISCH. Ambassador.

Ambassador SANDERSON. I certainly would agree. I would also note that this project of the UAE has attracted a great deal of commercial interest around the world; and so, there are countries out there that are looking at this as a commercial possibility. And the fact that, as they go with the 123 Agreement, there will be a regime in place that will help govern where they end up, it's certainly very useful. But, yes, it's going to be a competitive market.

Senator RISCH. Dr. McFarlane.

Dr. MCFARLANE. I believe that they will go forward, and I think if we look at the risk to the United States, we are far better off to be engaged and understand what is going on and have some say in what they're doing, versus being disengaged and not having an influence on how they go forward. So, it's a fairly simple equation, I think, and it is important, I think, that the United States be a player.

Senator RISCH. Thank you. Let me just conclude, Mr. Chairman.

I think that—after this hearing and after my trip and what have you, I think all of us should compliment the UAE, No. 1, for being a friend of America in the region, being as open and transparent as they are, and including the United States in their efforts to do what they are trying to do. So, I think we should embrace that. I think certainly we should continue to negotiate and work in good faith with them, to help them accomplish what they want to,

because what they want appears to be in the best interest of the United States also.

Thank you, Mr. Chairman. Thank you for holding the hearing.

Senator CASEY [presiding]. Thank you Senator Risch. And I appreciate your insight, having spent some time in the area, and also the insight you bring to this hearing today.

And I don't know if Senator Risch asked for this, in my absence, that Idaho be represented at every subcommittee hearing henceforth, but we'll see what we can do about that.

And thank you for your patience. I had to run down the hallway to vote in another committee.

I wanted to go back to some of the concerns that have been raised, just to highlight a few more questions.

A related concern, in terms of the movement of goods or services commerce, really through the region, involves financial institutions and financial—for lack of a better phrase, financial flows—to Iranian banks with important ties to the Iranian proliferation efforts including Bank Melli, that carries out activities in UAE. I guess I'd ask you to restate, or enunciate further, steps that the UAE has taken to deal with these concerns about Iran, but also about the region.

And I think Senator Risch made a good point about the fact that an agreement like this could provide better opportunities, strengthened opportunities for us to be able to pay even closer attention, and get even more intelligence and more information.

But, I wanted to have you address that again, our State Department witnesses.

Mr. VAN DIEPEN. Thank you, Mr. Chairman.

The UAE has taken a number of concrete steps to implement the U.N. Security Council resolutions that impose sanctions on Iran. And these are really the international legal basis that they and other countries have to try and deal with the problem of Iranian banking and proliferation finance.

For example, the UAE was one of the first gulf states to alert its financial institutions this year to the perils of doing business with Iran. This is consistent with the statements of the so-called Financial Action Task Force, an international financial body. And it's our understanding that these actions have resulted in increased scrutiny, by the UAE's financial sector, of transactions with Iran.

And as I noted before also, the UAE has passed and has started implementing new export control legislation, and we see them taking steps to enforce this law, and they've actually been prosecuting cases under that law.

And again, as you've noted, the improvement in our bilateral relationship that'll be facilitated by this 123 Agreement will, I think, give us a better basis to assist them to do even more in trying to deal with this very thorny problem.

Senator CASEY. Ambassador.

Ambassador SANDERSON. Senator, if I may?

I would also note that over the last 5 to 7 years the UAE has put into place a series of laws and regulations that are regulating the movement of money through and in its territory. That includes a money laundering law, that includes adhering to the Middle East North Africa Financial Action Task Force that Mr. Van Diepen re-

ferred to. They have implemented a counterterrorism law; they have set up a sensitive financial intelligence unit to look at money laundering and the passage of money through banks; they have worked very closely with the—the government has worked very closely with the Central Bank of the UAE to train and to put the banking system under increased regulation and scrutiny.

It's still a work in progress, but these have been significant efforts by the UAE government, and they're—also been complimented by the fact, in certain instances, they have shut down financial entities, as well as companies that are involved in transshipment and the diversion of dual-use items.

Senator CASEY. So, you're confident that they've taken, to date, all the necessary and appropriate steps to deal with the broader question of export controls, as well as any other related concern that have been raised here.

Ambassador SANDERSON. Mr. Chairman, it certainly remains a work in process, and as we've noted earlier, we are helping that through training, through exercises, and other endeavors as part and parcel of our partnership. But, they are putting into place the legal framework, and they are going after individuals and entities that they believe are involved in proliferation, transshipment, and other money-laundering-related issues.

Senator CASEY. Thank you.

Dr. McFarlane, I didn't have a chance to ask you a question before. I wanted to ask you—based upon your significant experience in the national and international nuclear energy arena—can you—and you've referred to this, I know, but I wanted to have you review or amplify—can you give us your sense of the commercial opportunities for U.S. companies here, in terms of, not just the opportunity, but the ability to compete as a result of this agreement.

Dr. MCFARLANE. Well, as I mentioned in my testimony, there are some small contracts in place for consulting that currently is to help the UAE get into position to be able to start importing nuclear reactors for power and to regulate them effectively once they have them.

But, these are fairly minor, compared to the opportunity that the U.S. companies will have to compete for both being major suppliers of components for the nuclear powerplants, as well as the fuel for the plants. And I'm very confident that U.S. technology is highly competitive in the world market and that there is a very high probability of success for some significant portion of those contracts.

Senator CASEY. And what would the component parts that you see potential in, in terms of what we could export be? Can you list or identify some of those?

Dr. MCFARLANE. Well, for one thing, we have—as I'm sure you're aware, Senator—we have nuclear reactor vendors, such as Westinghouse from your State—

Senator CASEY. Right.

Dr. MCFARLANE [continuing]. Home State. And we have—in addition to the reactor itself, there are many different, kind of, hardware components, such as steam supply systems and generators and things, which can be part of that export—on that export list. I mean, there's quite a lot of hardware, and, in addition, there is engineering and construction expertise available from the United

States that I think is a good opportunity to compete for some of that—some of that design work.

Senator CASEY. Thank you.

I wanted to highlight one last thing, one last theme that we've heard before. But, it's interesting that—every once in a while in Washington, it's good to point to a source outside of the four walls, so to speak, of the Senate.

I was looking at a July Congressional Research Service report that was very informative on this agreement, and the background, and the process. But, I thought it was interesting, on page 6 of the report, it did highlight the two new provisions that are significant. And we mentioned these before, but I think it bears repeating, because when the American people are asked to review, or to at least be aware of, what this agreement means for the country—and it's obviously not in the headlines every day we need additional assurances that I think these two provisions provide.

“First”—and I'm quoting from the Congressional Research Service Report, on page 6, “First, the agreement provides that the UAE bring into force” the Additional Protocol to its IAEA safeguards agreement before the United States licenses, “exports of nuclear material, equipment, components, or technology,” pursuant to the agreement. That's significant. And we can't highlight that enough, especially for Americans who are just beginning to tune into the ramifications of this agreement. So, it's important that Additional Protocol is highlighted on the record.

Second, as the CRS report notes, the agreement states that the UAE—and I'm quoting here from the report—“shall not possess sensitive nuclear facilities within its territories or otherwise engage in activities within its territory for or relating to the enrichment or reprocessing of material, or for the alteration in form or content of plutonium, uranium 233, highly enriched uranium, or irradiated source or special fissionable material.”

So, those two new provisions are significant. And I know you've highlighted those, or our witnesses have. But, I think it's critically important that the American people know the lengths to which both administrations—the Bush administration and the Obama administration—have gone to insist upon as substantial and as airtight an agreement that we could negotiate, because it's vitally important that we do this the right way.

And I thought it was interesting that both administrations have used—in one way or another, have used the word “model” to describe this. Because it's not enough for us to be able to make the case against what the Iranian regime has been doing. We have taken steps, and we'll take more steps, to hold them accountable. And I think the international community will, as well. It's also important that we can point to another model—not just a theory, not just a hope—but another model that other governments can try to live up to.

So, it's not by way of a question, but it's by way of an observation, that these new provisions are vitally important.

And with that, let me ask any and all of our witnesses if you'd like to add anything or to make any final remarks before we conclude.

Anyone?

[No response.]

Senator CASEY. OK.

And we will leave the record open for other Senators on the subcommittee, or even beyond our subcommittee, to submit questions, and we would ask that our witnesses do your best to reply to those in writing.

Senator CASEY. Thank you very much.

We're adjourned.

[Whereupon, at 11:15 a.m., the hearing was adjourned.]

#### ADDITIONAL MATERIAL SUBMITTED FOR THE RECORD

SUPPLEMENTAL PREPARED STATEMENT OF HON. RUSSELL D. FEINGOLD,  
U.S. SENATOR FROM WISCONSIN

Mr. Chairman, thank you for holding today's hearing on the U.S.-UAE nuclear cooperation agreement. It is important to vigorously debate whether this agreement—and our practice of pursuing this type of agreement with other countries—is a sensible policy from a nonproliferation perspective.

Today's hearing made clear that there are many willing buyers and sellers of the technology needed to make nuclear fuel and weapon-grade materials. We should not pretend that a bilateral agreement with one government will change that fundamental reality. We must directly address this problem if we want to prevent terrorists from one day gaining the materials they need to acquire a nuclear weapon.

I would like to address two issues that my colleagues raised at today's hearing: The first issue is whether it is appropriate to compare the risks of nuclear cooperation with the UAE to the danger posed by Iran's nuclear program.

I do not believe that the UAE poses an Iran-style proliferation threat right now. I am concerned, however, that if we continue to encourage countries to pursue nuclear energy, it is only a matter of time before one of them decides to acquire an enrichment or reprocessing capacity to guarantee a nuclear fuel supply. It is common sense that any country relying on nuclear energy will want its own fuel supply notwithstanding any promises that it is willing to make today. Iran is just one of several countries that have illustrated this danger.

While I applaud the UAE's promises to forgo an enrichment and reprocessing capacity, there is a risk that a future regime could walk back that promise. The Iranian example is particularly relevant here: after all, the United States helped launch the Iranian nuclear program under the Atoms for Peace program, only to see it turn in a dangerous direction after the Iranian Revolution.

Finally, I am not convinced that the UAE has taken the necessary steps to restrict illicit transfers to Iran. I understand they have passed a national export control reform law, but that implementation has been slow.

The second issue is whether there is a clear line between a civilian nuclear energy program and a nuclear weapons program.

I am not suggesting that the nuclear cooperation that would occur under the proposed agreement would be sufficient to support a nuclear weapons program. I am concerned, however, that this agreement—and others like it—may facilitate or encourage a nuclear weapons program. Even a civilian nuclear energy program involves dual-use technology, which can also be used to support a weapons program.

Further, countries that depend on nuclear energy may eventually covet a domestic enrichment and reprocessing technology to ensure a reliable nuclear fuel supply. Lack of progress on an agreement in the Nuclear Suppliers Group that would meaningfully restrict the transfer of these technologies suggests that countries want to retain the right to transfer and receive enrichment and reprocessing technology for the financial and energy benefits that technology may bring. Given this reality, the promises in this bilateral agreement provide little comfort.

#### RESPONSES OF ACTING ASSISTANT SECRETARY VANN H. VAN DIEPEN TO QUESTIONS SUBMITTED BY SENATOR JOHN F. KERRY

*Question.* The proposed U.S.-UAE agreement breaks new ground by requiring the UAE (a) not to construct uranium enrichment or plutonium reprocessing facilities on its territory; and (b) to bring into force an Additional Protocol to its safeguards agreement with the IAEA before the United States will permit exports. But what

happens if other countries in the region refuse to accept these conditions, and other nuclear supplier countries nevertheless agree to engage in cooperation?

What is the administration doing to keep the United States from being isolated and undercut as it tries to establish these standards for cooperation?

Press reports indicate that Jordan has already signed agreements for nuclear cooperation with France, the United Kingdom, China, and Russia. Do any of those agreements have conditions similar to the U.S.–UAE agreement?

Answer. The U.S.–UAE agreement obligates the UAE not to assume enrichment or reprocessing facilities from any suppliers, not just the United States. While we cannot control the specific conditions in bilateral nuclear cooperation agreements that other nuclear supplier states make with other countries, we are working actively in the Nuclear Suppliers Group (NSG) to institute stricter guidelines for the transfer of civil nuclear technologies, including that recipient countries have put in place an Additional Protocol to their safeguards agreements with the International Atomic Energy Agency (IAEA).

We also have ongoing discussions with bilateral partners regarding appropriate supply conditions. For example, we work regularly with France, the United Kingdom, China, Russia, and with all Nuclear Suppliers Group (NSG) participating governments to ensure that all nations maintain stringent standards for any transfer of proliferation-sensitive technologies. And we are focusing our efforts on furthering agreement among supplier states about the importance of encouraging customers to rely the market rather than developing their own enrichment or reprocessing capabilities. With specific regard to Jordan, we applaud the fact that Jordan has brought into force the Additional Protocol to its safeguards agreement with the IAEA.

*Question.* What specific actions has the United States taken to get other supplier countries—particularly including France and Russia—to ask for the same conditions in the bilateral agreements that they sign?

Doesn't United Nations Security Council Resolution 1887 require this, when it "Calls upon States to adopt stricter national controls for the export of sensitive goods and technologies of the nuclear fuel cycle?"

Will this be an issue at the next meeting of the Nuclear Suppliers' Group?

Answer. As a result of U.S. efforts in the Nuclear Suppliers' Group (NSG), NSG participating governments (including France and Russia) will discuss the adoption of stricter export control measures for sensitive enrichment and reprocessing technologies in November 2009, and will continue to press the NSG to reach consensus on appropriate guideline amendments. We also have ongoing discussions with bilateral partners regarding appropriate supply conditions. (If you would like additional information regarding these discussions, we would be pleased to brief you and your staff in a classified setting.) Additionally, all enrichment and reprocessing technology holders in the NSG already apply stringent export controls to these technologies, and the de facto commercial standard for enrichment transfers requires "black box" conditions; that is, transfers that do not provide the recipient country with access to technology enabling replication of such facilities.

United Nations Security Council Resolution 1887 reflects the international community's agreement about the importance of adopting stricter national export controls on sensitive nuclear fuel cycle technologies, and Resolution 1887 calls on states to increase their efforts in this regard. We are working both bilaterally and multilaterally in the Nuclear Suppliers Group to limit the spread of these technologies. We have also worked bilaterally with many states to strengthen their nuclear export control regimes.

*Question.* Both the United States and, now, the U.N. Security Council have called for universal application of the IAEA Additional Protocol. Will the administration make this a requirement in all future cooperation agreements, including with countries outside of the Middle East, before U.S. nuclear exports commence?

Answer. We do support the universal adoption of the International Atomic Energy Agency (IAEA) Additional Protocol (INFCIRC/153) and are working actively to achieve that objective. The majority of countries that are potential nuclear trading partners of the United States have already brought an Additional Protocol to the IAEA safeguards agreements into force, and we will consider whether a state has an Additional Protocol in force when negotiating any future nuclear cooperation agreements.

*Question.* What other agreements for nuclear cooperation are currently being negotiated, or have been completed and are awaiting submittal to Congress?

What new Memoranda of Understanding on nuclear cooperation are being negotiated or have been completed in the last few months?

Answer. A nuclear cooperation agreement with Jordan remains under negotiation, and we continue to work to finalize the agreement. A nuclear cooperation agreement with Russia was signed in 2008, but former President Bush made a subsequent determination that effectively terminated Congressional review of that agreement following the Russia-Georgia conflict. President Obama and Russian President Medvedev have issued statements indicating that both sides plan to work together to bring the agreement into force; however, no decision has been made on its resubmission to Congress.

No nuclear cooperation Memoranda of Understanding (MOUs) have been completed within the last few months. The text of a nuclear cooperation MOU with Vietnam has been agreed upon at the expert-level. It awaits only final approval of senior officials within both governments.

Additionally, the United States proposed a draft civil nuclear cooperation MOU with Qatar in June 2008. This MOU is still under review by the Government of Qatar.

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RESPONSES OF ACTING ASSISTANT SECRETARY VANN H. VAN DIEPEN TO QUESTIONS  
SUBMITTED BY SENATOR RUSSELL D. FEINGOLD

*Question.* If the UAE were to back out of this agreement and seek its own enrichment or reprocessing technology, isn't it true that other nations are not bound to cut off technological assistance or fuel supplies?

Answer. As a general rule, bilateral international agreements cannot bind third parties to take particular actions if one party withdraws from an agreement. However, a UAE withdrawal from this agreement and subsequent pursuit of enrichment and reprocessing, despite its numerous public pronouncements to the contrary, would potentially have extremely significant economic and political consequences on future cooperation between the UAE and other supplier nations.

*Question.* What efforts are being made to coordinate with our allies to ensure that they place similar restrictions on enrichment and reprocessing capacity in their bilateral nuclear cooperation agreements, both with the UAE and with other prospective countries?

Answer. While we cannot control the specific language in bilateral nuclear cooperation agreements made by other nuclear supplier states, we work regularly with bilateral partners and with all Nuclear Suppliers Group (NSG) participating nations to ensure that all nations maintain rigorous standards for any potential transfers of enrichment and reprocessing-related technologies. Further, the UAE has committed to follow strictly the NSG Guidelines, the application of which will provide it with stronger tools to prevent proliferation and illicit transshipments of sensitive nuclear technologies through the UAE.

*Question.* What are the security implications if numerous additional countries were to acquire enrichment or reprocessing capabilities? Does it increase the danger that terrorists will acquire the materials needed to make an improvised nuclear device or a dirty bomb?

Answer. We recognize these potentially significant security implications of numerous additional countries acquiring enrichment and reprocessing capabilities. As a consequence, we are seeking to limit the spread of enrichment and reprocessing technologies through strengthening Nuclear Suppliers Group controls over such transfers and through bilateral consultations with key technology holders.

*Question.* I am concerned about the role that the UAE may play as a hub for the illicit transfer of nuclear materials to Iran or as a financial conduit for terrorist organizations. I understand that the UAE has passed a national export control reform law, but implementation had been slow. Has the regulatory regime been made operational with implementing regulations yet? And has the national control body established by the law been fully staffed?

Answer. The UAE has made significant progress in the area of export controls and preventing transshipments of proliferation concern. The national export control law is being enforced. The UAE, as part of its enforcement efforts, formed the "UAE Committee on Commodities Subject to Import and Export Control," an interagency committee chaired by the Minister of State for Foreign Affairs that reports directly to the Council of Ministers. This committee has already met and its goal is to facilitate effective implementation of the export control law. The UAE is also adding additional staff to the export control office and is working to complete implementing regulations; we are actively engaged with the UAE on these issues.

*Question.* Mr. Van Diepen, you suggested that our memorandum of understanding with Jordan on nuclear cooperation includes a provision requiring Jordan to forgo an enrichment or reprocessing capacity. But it is my understanding that the delay in proceeding with the 123 Agreement centers on Jordan's unwillingness to give up its right to an enrichment and reprocessing capacity, which it considers to be non-negotiable. Have there been recent developments in negotiations, or new language in the agreement, that suggest otherwise?

*Answer.* During the hearing, we attempted to convey that the United States-Jordan Memorandum of Understanding contains language noting Jordan's intent to rely on the international markets for fuel services as an alternative to developing sensitive enrichment or reprocessing technologies. We continue to discuss with the Government of Jordan the possibility of concluding a nuclear cooperation agreement, and we intend to employ those mechanisms that are most appropriate to achieve our goal of limiting the spread of enrichment and reprocessing technologies.

