

REMARKS BY ENERGY SECRETARY SAMUEL BODMAN TO THE CARNEGIE ENDOWMENT FOR INTERNATIONAL PEACE SUBJECT: NUCLEAR NON-PROLIFERATION LOCATION: CARNEGIE ENDOWMENT FOR INTERNATIONAL PEACE, WASHINGTON, D.C. TIME: 10:45 A.M. EST DATE: MONDAY, NOVEMBER 7, 2005

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(Applause.)

SEC. BODMAN: Thank you, Rose, for that very nice introduction. I hope you will still feel the same way three years from now. (Laughter.)

First, let me say to Rose and to Dr. Matthews and everyone associated with the Carnegie Endowment that this administration and this department greatly value the work that you do. This is particularly so with the series of conferences that are dedicated to exploring the very complicated issues of nonproliferation policy.

And allow me to offer my congratulations to Director ElBaradei and the IAEA for the award conferred last month by the Nobel Foundation. We should applaud the agency staff and all of the member nations that come together through the IAEA to work in partnership to reduce the threats posed by the weapons of mass destruction, and to spread the benefits of the peaceful use of the atom for medicine, for agriculture, and of course for energy.

So I do wish to congratulate the director general on the success of the most recent general conference of the IAEA. As perhaps you know, the 49th General Conference took place just six weeks ago, and it was a few short days after Hurricane Rita made landfall in the Gulf Coast. Because of the damage that that storm did to the energy infrastructure, I was unable to travel to Vienna for the IAEA meeting. And so today I hope to touch on several of the themes that I had planned to cover in my remarks at the general conference.

The main idea I want to discuss with you this morning is that the need for peaceful nuclear power all over the globe has never been more apparent, while at the same time the proliferation threat posed by nuclear materials and technology has never been more grave. Since the demise of the Soviet Union, we have seen two new developments which should inform our 21st century thinking on issues of atomic energy and combating the proliferation of nuclear materials.

The first of these is the rise of global terrorism. The events of September 11th demonstrated a broader scope for international terrorist activity than most people at the time understood. They revealed the heightened ambitions of Osama bin Laden and his followers.

While the world watched the real-time horror of the planes being rammed into buildings, policymakers and other experts, including many I would suspect

in this room, could imagine the horrors of al Qaeda and the horrors that al Qaeda could wreak on the entire world were its members able to fashion a device using nuclear materials, whether an atomic bomb or even a radiological dispersal device.

Faced with a declaration of madmen who wish to sew the fields of civilization with death and destruction, there can be no excuse on our part not to think of nuclear issues in terms of a very real terrorist threat. Accordingly, our nonproliferation priorities reflect this fact.

Perhaps the best example of this is the heightened cooperation between our nation, the United States, and the Russian Federation, as a result of the historic Bratislava accord negotiated by Presidents Bush and Putin. As a consequence of the decision of the two presidents, the United States and Russia are working more closely now than at any point. Indeed, we are partners in a war on global terror, and we have held several joint meetings to strengthen this partnership and advance our mutual goals.

These meetings have included the leadership of our respective departments and agencies at all levels. It included a very productive set of sessions between myself and Dr. Rumiensa (ph), first in February then in June of this year. And in a few days, the director and I will have a follow-up meeting to take our efforts to the next level.

Let me mention a few of the areas in which Russia and the United States are cooperating to make the world more secure. We are working together on issues of emergency response, and are accelerating our work on nuclear security. For example, two weeks ago Russian experts participated as observers in a tabletop exercise demonstrating how our department, the Energy Department, with the FBI would respond to a scenario involving a search for nuclear materials and the detonation of a radiological dispersion device. U.S. and Russian experts met several times to organize activities in sharing best practices in the area of security assurances at nuclear facilities. Last month we conducted a bilateral workshop in Moscow focused on promoting the so-called security culture, including fostering disciplined, well-trained and responsible protective forces.

In addition, I'm pleased to announce that the first conversion of a Russian-supplied research reactor from highly enriched uranium to low enriched fuel. That reactor is located in the Czech Republic. Because of this success, we were able to safely airlift a significant amount of HEU from the Czech Technical University, which is located near Prague, and it was transported for safe and secure storage in Russia. And we're finalizing arrangements with our Russian counterparts to return the first shipment of Russian-origin spent HEU from Uzbekistan by the end of the month.

Now these are significant achievements, and I believe they are making the world more secure. But it is important to remember that these actions address vulnerabilities that were created during the Cold War. We now have the opportunity to reshape our thinking so that nonproliferation becomes the cornerstone for the next evolution of civilian power and fuel cycles.

The other major development that should inform the 21st century nonproliferation regime stems from major growth in the global economy. Most analysts agree that in the coming decades we will see marked growth by the economic expansion all over our globe. We in the United States certainly expect our economy to remain robust. We should also expect to see growth in many parts

of the developing world, from China and India to South America and Africa. If these forecasts are correct, it will mean the improvement of living standards for people all over our planet. It will mean the rescue of millions from poverty and despair, a development that everyone in this room would welcome. But with economic growth comes other impacts that must be anticipated, specifically a commensurate growth in worldwide energy demand.

Simply, the world will need much more energy in coming decades. The Energy Information Administration, EIA, which is part of our Energy Department, estimates that perhaps as much as a 50 percent growth will materialize by the year 2025, over the next 20 years, with more than half of that growth coming from the world's emerging economies.

The questions that face all of us, not to mention our colleagues around the world in government, academia, industry and the public policy area, are as simple as they are momentous. How do we meet this demand? How do we do it in a way that protects and preserves the environment? How do we do it in a way that leaves all the nations of the earth safer and more secure?

The search for answers to these questions increasingly points in one direction: nuclear energy. Nuclear energy is manifestly safe. It is clean. It is efficient and affordable. In addition, it produces no greenhouse gases, which has to be a consideration anytime where concerns about greenhouse emissions are driving global public policy debates all over the world. The United States government believes that nuclear power will, and that it must, play an enlarged role to meet the global demand for clean, affordable, safe and reliable sources of energy.

The challenge that confronts us, then, is finding ways to expand the use of nuclear power, making its benefits available to a wider group of nations and people, while simultaneously maintaining and improving the international nonproliferation regime to ensure that nuclear power does not provide the cover for a covert nuclear weapons program. That, as everyone in this room realizes, is no easy task. I think it is clearly, however, that it is a task that will require active participation by all the nations represented here, including the United States.

To my mind, two prerequisites need to be met. We must reinvigorate America's commitment to developing nuclear energy technology and systems. And we must enhance the work of international forums, such as the IAEA, in forging a strengthened nonproliferation approach to the expanded global use of nuclear energy. Let me take a few minutes to speak to both of these issues.

On the first point, restoring American effort in nuclear energy technology, I need to remind this audience that no new nuclear power plants have been built in the United States in the past three decades. Much of the reason for this has to do with the incident at Three Mile Island in 1979. This episode spurred a number of safety and regulatory changes, as well as subsequent prolonged legal entanglements for those who were in the nuclear business at the time.

Yet nuclear power has proven not only to be safe, it is also the cheapest means of generating large-scale production of energy. It is also the most efficient. Today, the average plant now runs about 90 percent of capacity. Twenty-five years ago, a nuclear power plant was lucky to run at even 60 percent capacity. Nuclear power is not less clean than before, which is why we need it both to remain a key component in our future power mix, and to help

meet the developing world's need for affordable and reliable electricity in the coming decades.

Our government has taken a number of dramatic steps recently that are setting the stage for an expansion of nuclear power. Most notably, the landmark energy policy legislation that Congress passed and the president signed in August contains a host of provisions to facilitate nuclear energy's resurgence in the United States.

Among them is a measure establishing federal insurance to protect new reactor projects from foundering due to regulatory or legal delays. Other key provisions, such as Nuclear Power 2010, which is a cost-shared partnership between industry and government, will demonstrate a streamlined regulatory process, which we hope will lead the way for industry to field new, advanced light-water reactors by the end of this decade.

These are not only -- are not the only measures being taken to promote nuclear power. For instance, this administration has committed to the success of establishing Yucca Mountain as the nation's permanent repository for spent nuclear fuel. Solving the problem of how to store spent fuel will reap tremendous benefits for America's future and will help set the stage for an expansion of nuclear power. And the permanent geological storage at Yucca Mountain offers the safest, most secure solution for dealing with this challenge.

Our administration is also working with nearly a dozen international partners through Generation IV -- the Generation IV International Forum -- to accelerate development of advanced nuclear energy systems, systems that offer further improvements and efficiency, sustainability, safety and, most importantly, proliferation resistance. Additionally, we're pursuing an advanced fuel cycle, an initiative on advanced fuel cycles, to achieve a sensible long-term approach for dealing with spent nuclear fuel. And we recently joined the IAEA's international project on innovative nuclear reactors and fuel cycles to address the framework requirements that these future plans will require.

It is important to note in addressing reprocessing or recycling technologies for dealing with spent fuel, we are guided by one overarching goal: to seek a global norm of no separated plutonium. Regardless of whether one believes reprocessing has worked well in those nations where it is practiced, I think everyone would agree that the stores of plutonium that have built up as a consequence of conventional reprocessing technologies pose a growing proliferation risk that requires vigilant attention by all of us. Therefore, the pursuit of recycling technologies that do not produce separated plutonium must be considered not just as a worthwhile, but as a necessary goal.

These activities lead naturally to the second of the two prerequisites that I mentioned earlier, and that is the steps that we must take to press forward with a sensible 21st century nonproliferation approach to the expanded use of nuclear energy. After all, the grand ideas we nurse for the future of nuclear power can amount to nothing without the firmest possible conviction about preventing the spread of nuclear technologies, materials and expertise.

In an address last year at the National Defense University here in Washington, President Bush issued a bold challenge to the world's nuclear supplier states. He called on them to commit to assuring the benefits of nuclear energy -- that would assure the benefits of that nuclear energy to those

states willing to forgo enrichment and reprocessing capabilities, and he called on them to refuse to sell enrichment and reprocessing equipment and technologies to any state that does not already possess full-scale functioning enrichment and reprocessing plants.

The president proposed this initiative with the aim of closing the loophole in the Non-Proliferation Treaty that has been exploited by North Korea and Iran, while ensuring the continued expansion of nuclear power around the globe. As President Bush noted in his remarks, quote, "Enrichment and reprocessing are not necessary for nations seeking to harness nuclear energy for peaceful purposes." Unquote. I believe that he's right. And the proposal that he puts forward marks a major step in strengthening the international nonproliferation regime the Nobel Committee rightly commended just this past month.

Since the president made this proposal 21 months ago, we have engaged with other suppliers and the IAEA on the challenges of assuring fuel services to those reactor states that swear off enrichment and reprocessing. It is not enough to promise that those states will have a reliable access to or reasonable cost for fuel for civilian reactors. A promise amounts to little without the means to carry it out. If we expect to foster real cooperation, we need to provide reliable access to nuclear fuel.

The current commercial market is able to satisfy the demand for fuel services, but there is the need for a backup or a safety-net mechanism that could provide reliable access to nuclear fuel in the event of possible future disruptions in the market supply.

To that end, the United States has been working with the IAEA and the major fuel suppliers to put in place a mechanism that would allow the IAEA to assist states in identifying alternative suppliers who could meet their needs in the event of such disruptions. We're also exploring additional steps that would add additional credibility to assurances of supply, and provide stronger incentives for countries to forgo enrichment and reprocessing.

Last month, I announced plans to reserve up to 17 metric tons of HEU to help establish a fuel reserve to support nuclear supply assurances. When blended down under the IAEA verification, this material would result in approximately 290 metric tons of LEU, or enough fuel for 10 reactor core reloads. We are strongly encouraging other international partners to establish similar reserves.

We're also examining issues related to the return and storage of spent fuel, which could allow recipient states to avoid a number of cost, safety and safeguards burdens. In the longer term, we see fuel-cycle states offering cradle to grave fuel-cycle services, leasing fuel for power reactors and then taking it back for reprocessing and ultimate disposition.

The success of this initiative will require the full commitment not just of my government, but all fuel-supplier and fuel-recipient states as well. In particular, we will need to cooperate on disposition methods and technologies for high-level wastes and for spent fuels. We also mustn't close the door on the possibility of establishing international spent-fuel repositories.

I want to note that these activities can compliment our broader and more traditional nonproliferation goals. For instance, we recently marked a major milestone in Megatons to Megawatts program to blend down 500 metric tons

of highly enriched uranium for dismantled Russian nuclear weapons. Last month, we proudly announced that we had reached the halfway point in this program. In the 10 years of its existence, we have successfully blended down more than 250 metric tons of HEU. That's the equivalent of 10,000 Russian warheads rendered harmless with the resulting low enriched uranium available for use in American civil nuclear reactors. Nor is this the only swords-to-plowshares achievement that is worth commemorating. In May of last year, the president announced plans to reduce our nation's nuclear weapons stockpile by nearly one-half, to its smallest size since the Eisenhower era. That decision enables us to dispose of a significant amount of weapons grade nuclear material.

After months of very careful study on how to proceed with this immensely challenging task, I'm pleased to be able to announce this morning our plans to remove 200 metric tons of HEU from the U.S. nuclear weapons stockpile. That 200 metric tons of HEU is enough for 8,000 nuclear warheads, representing the largest amount of special nuclear material ever removed from the stockpile in the history of the United States nuclear weapons program. The bulk of this amount, 160 metric tons, will be provided for use in propulsion systems for our nation's nuclear Navy. Designating this HEU for use by Hyman Rickover's Navy will have the added benefit of postponing the need for construction of a new uranium high-enriched facility for at least 50 years. An additional 20 metric tons will be reserved for space missions and for research reactors that currently use HEU pending their conversion to LEU fuel cores.

I'm particularly pleased that the final 20 metric tons of HEU will be downblended to LEU for use in civilian nuclear power reactors or research reactors, thereby minimizing its potential usefulness to terrorists. Like the 17 metric tons of HEU we announced last month for future assured fuel supply, this 20 tons will help extend the peaceful benefits of nuclear energy. In short, it is both an energy security triumph and a nonproliferation triumph, and it should serve as an example for the sort of approach we are committed to taking in the years ahead.

Ladies and gentlemen, I want to thank you for the invitation to be here with you this morning. In wrapping up my remarks, I think it is worth remembering an exhortation attributed to the Carnegie Endowment's first president, the venerable statesman Elihu Root. Secretary Root was scheduled to appear in Oslo in September of 1914 to receive the Nobel Peace Prize. In the remarks he prepared, he noted that the present generation has before it a golden opportunity for service in the cause of peace. Sadly, Secretary Root was unable to deliver that message; the outbreak of the First World War prevented him from traveling to Europe for that ceremony. His message of peace went unheard as the continent of Europe descended into chaos and bloodshed.

But it occurred to me this morning that his words need not go unheard by our generation. The message is timeless, and well applies to our situation today. Once again we have a golden opportunity for service in the cause of peace. We can take steps to extend the benefits of atomic power to every corner of the Earth so that a safe, affordable, emissions-free and reliable source of energy can be used by growing economies to spread prosperity, to lift millions out of poverty, and to plant the seeds of peace and stability. We can take steps to improve and strengthen the international nonproliferation regime so that we can indeed spread nuclear energy's blessings without worries about dangerous materials and technology spreading as well.

This is the opportunity, the golden opportunity, with which our generation is presented. This is the golden opportunity Elihu Root spoke of but it has been transposed to our era. The only question is, will we take it?

Thank you very much. (Applause.)

END.