

**Statement by Ambassador Linton F. Brooks
Administrator of the National Nuclear Security Administration
U. S. Department of Energy
Before the
Senate Foreign Relations Committee
U. S. Senate**

June 15, 2004

Introduction

Thank you, Mr. Chairman and members of this Committee, for the opportunity to appear before you today to discuss the nonproliferation efforts of the National Nuclear Security Administration (NNSA). Before discussing our specific activities, I want to express how critically important I consider your contributions, both past, present and future, to the United States' efforts to prevent the spread of weapons of mass destruction (WMD). Your continued support and interest in stopping the proliferation of WMD demonstrates the Committee's long-standing commitment to the national security of this country. I appreciate your strong support and I look forward to our continued work together.

In his speech at the National Defense University (NDU) in February, President Bush stated, "The greatest threat before humanity today is the possibility of secret and sudden attack with chemical or biological or radiological or nuclear weapons... America, and the entire civilized world, will face this threat for decades to come." To meet this challenge, the President asked that we confront it "with open eyes, and unbending purpose."

The proliferation of nuclear weapons poses a grave threat to the United States and our allies. The demand for nuclear weapons is on the rise as both states of concern and terrorists are actively seeking the materials, expertise and technology to develop nuclear weapons. The Bush Administration has made nonproliferation one of its top priorities and I believe we are making real progress to reduce this threat.

The amorphous nature of this threat commands that our nonproliferation programs have the capability to evolve and adapt to thwart the efforts of our adversaries. Our acceleration of current programs and new initiatives in recent years demonstrates our commitment to prevent a nuclear or radiological event against the United States or our allies. The focus of my statement will be on just how we are adapting our programs, in concert with our international partners and the International Atomic Energy Agency (IAEA), to meet the challenges posed by the nuclear ambitions of states of concern and terrorists.

NNSA Nonproliferation Activities

The Department of Energy's nonproliferation programs, now under the NNSA, have long been associated with reducing the proliferation threat posed by the former Soviet Union's (FSU) weapons complex. In the immediate aftermath of the end of the Cold War, the nexus of deteriorating economic conditions and an expansive nuclear complex in the former Soviet Union justified aggressive programs to upgrade the security of the materials, expertise and weapons of the FSU; permanently dispose of surplus fissile materials; and end the production of plutonium. Our accomplishments, which I will be reviewing in detail shortly, support the progress that is being made in the FSU.

While the FSU has been and remains a focus, the NNSA's programs have always been engaged in working with other countries and international organizations to address the global dimension of the nonproliferation challenge. The increased commitment to nonproliferation in both a strategic sense, outlined in the February NDU Speech and dollars—a 60% increase since FY 01—has resulted in an invigorated sense of urgency and determination to reduce the threat rapidly. We have expanded efforts to gain international participation; accelerated existing programs; and identified and addressed emerging and existing threats not yet covered by our nonproliferation programs.

The facts are we are faced with a number of proliferators, states of concern and terrorist networks that threaten United States and international security by actively pursuing nuclear weapons capabilities, technologies, and expertise. The NNSA plays a prominent role in

responding to these WMD proliferation threats. We recognize the broad scope and complex nature of this threat, and understand that our programs must identify and address potential vulnerabilities within the nonproliferation regime before terrorists or rogue states exploit them.

Our mission is to detect, prevent, and reverse the proliferation of WMD, while mitigating the risks associated with peaceful nuclear energy operations. We implement this mission by:

- Conducting cutting-edge nonproliferation and national security research and development;
- Securing nuclear weapons and nuclear and radiological materials at potentially vulnerable sites in Russia and across the globe;
- Reducing overall quantities of nuclear and radiological materials;
- Bolstering border security domestically and overseas;
- Supporting international nonproliferation and export control regimes;
- Downsizing the nuclear weapons infrastructure of the former Soviet Union; and
- Mitigating risks at nuclear facilities worldwide.

By addressing key elements of the proliferation spectrum, these activities play an essential role in strengthening United States and international security. Our efforts are making the world more secure.

All of these developments support the need for a flexible suite of nonproliferation programs capable of rapidly addressing threats when they appear. There are many examples of such flexibility, but the verification of the dismantlement of the Libyan weapon of mass destruction and longer-range missile programs is a prominent example of where I see one of our nonproliferation activities heading in the future with a rapid response capability to remove and/or secure at-risk materials worldwide.

Evolving to Meet the Threat

The NNSA mission is focused on a single objective: denying states of concern and terrorists access to the materials, technology and expertise they would need to build or acquire a nuclear

weapon, and to reduce their incentives to acquire such capabilities in the first place. As I mentioned the convergence of international and domestic events have resulted in the acceleration and expansion of nonproliferation initiatives worldwide.

Accelerating and Expanding Nonproliferation Efforts

The NNSA currently works with over 70 countries on a variety of nonproliferation activities ranging from export control to the security of fissile material. There are many efforts worth discussing, but I will focus on three of our accelerated and expanded nonproliferation efforts since 2001: the international Mega-ports Initiative deploying radiation detection capabilities at major overseas ports; the new effort to provide security upgrades for the Russian Strategic Rocket Forces; and, finally, the Global Threat Reduction Initiative recently announced by the Secretary of Energy in Vienna, Austria, on May 26.

THE MEGAPORTS INITIATIVE

Utilizing expertise and lessons learned from the Second Line of Defense (SLD) Program's installation of radiation detection equipment in Russia, NNSA in cooperation with the Department of Homeland Security's Bureau of Customs and Border Protection is working to make technical resources available to complement Customs' Container Security Initiative (CSI) efforts in working with international ports. This provides law enforcement officials with an opportunity to pre-screen the bulk of the container cargo in the world trade system for weapons of mass destruction and nuclear and other radioactive materials that could be used in a nuclear weapon or a radiological dispersal device.

As part of this process, and with the concurrence of the foreign government, SLD teams are available to evaluate seaport vulnerability to illegal shipments of nuclear and other radioactive materials that present a proliferation concern and to recommend and/or potentially deploy radiation detection equipment to facilitate the pre-screening of cargo bound for the U.S.

DOE has installed the first radiation portal monitors at the Port of Rotterdam, ECT Delta Terminal that processes about 5% of all containers shipped to the U.S. The final phase of installation of radiation detection monitors at the Port of Piraeus, Greece is underway and is due to be operational in July 2004. The NNSA is currently engaged in negotiations with numerous countries in Asia, Europe and South America.

MATERIAL AND WEAPON SECURITY ACCELERATION ACTIVITIES

Another new and accelerated nonproliferation effort is to upgrade security at 25 sites of the Russian Strategic Rocket Forces. This work has commenced on an accelerated timetable. Ten years ago I would have never imagined we would have access to these facilities. We plan to complete security upgrades at all of the sites by 2008.

We have also accelerated existing programs to provide security upgrades at Russian Navy nuclear facilities and the 600 metric tons of fissile material in the FSU. The completion date for the Russian Navy nuclear warheads was moved from 2008 to 2006. This includes 39 sites that house both nuclear fuel for submarines and nuclear warheads. We have also accelerated our existing work to secure the 600 metric tons of fissile material identified throughout the FSU. The completion date was moved by up by two years to 2008. We fully expect to meet these aggressive timetables, given the necessary access and resources.

GLOBAL THREAT REDUCTION INITIATIVE

On May 26, in Vienna, Austria, Energy Secretary Abraham announced the Global Threat Reduction Initiative to expedite the removal and/or security of vulnerable nuclear and radiological materials worldwide. To carry out the Initiative, the Secretary has directed the NNSA to consolidate and accelerate the Department's nuclear materials removal efforts, and complete a comprehensive inventory of research reactors and vulnerable nuclear materials worldwide to rapidly identify and address any gaps in current security coverage and recovery or removal efforts.

We intend to accelerate existing removal and security timelines by as much as fifty percent, focusing on the highest risk materials as immediate priority recoveries. In addition to accelerating our removal timelines, we intend to: Develop a combined diplomatic and operational action plan to identify specific materials and sites in prioritized fashion; Establish a capability to respond to emerging and unanticipated threats requiring rapid removal of nuclear or radiological materials or equipment – similar to our recent efforts in Libya; and provide security enhancements to vulnerable nuclear and radiological materials of proliferation concern either as an interim measure until materials are removed or as a long-term mitigation action to secure the materials in-place.

I would now like to detail our core mission activities and highlight some of our most recent accomplishments in each of these areas.

Accomplishments

The President's recent speech at the National Defense University included several nonproliferation measures designed to strengthen U.S. national security. Among his proposals, the President underscored the need to address the demand for the most critical elements of the nuclear fuel-cycle, enrichment and reprocessing, as well as a renewed, stronger approach towards the implementation of safeguards.

The United States is working directly with the members of the Nuclear Suppliers Group and with the Zangger Committee to strengthen the nuclear export control regime, that includes making the adoption of IAEA's Additional Protocol a condition of supply and banning the spread of enrichment and reprocessing technologies. Recognizing the need to work with emerging nuclear technology suppliers and transshipment states, NNSA increased our work in the area of export controls by \$6 million.

Our work to secure nuclear materials, nuclear weapons, and radiological materials at potentially vulnerable sites in Russia and elsewhere is one of our most important missions. We are promoting the further safeguarding and physical protection of nuclear materials at nuclear sites

worldwide, including the states of the former Soviet Union and in over 40 countries with U.S.-origin material. The United States and Russia continue to accelerate cooperative nonproliferation efforts, and we are making progress.

For example, we have accelerated the timeline for securing 600 metric tons of weapons-usable nuclear material at 55 sites in Russia and Eurasia by 2008. By the end of FY 04, we have upgraded the security of 46% of the material and compared to 2002, we tripled the amount of new material placed under comprehensive upgrades in 2003.

We are also working internationally to consolidate and secure fissile materials and at-risk radioactive sources. We have upgraded security at thirteen nuclear facilities in Eurasian states outside Russia, holding 3.5 metric tons of weapons grade nuclear material, to meet international physical protection guidelines. Although our work continues to expand beyond the FSU, we are still working in the region to improve security at Russian Navy and Strategic Rocket Forces facilities – among the most sensitive facilities in Russia. We have expanded security upgrades of Russian Navy and Strategic Rocket Forces nuclear weapons sites and by the end of FY 04 will have secured 90% of the 39 Russian Navy warhead sites and initiated security upgrades at two Russian Strategic Rocket Forces sites.

Downsizing the nuclear weapons infrastructure of the FSU remains an important activity. Since the fall of the Soviet Union, we have worked hard to reduce the potential for diversion of WMD expertise, materials and technologies to terrorists and proliferant states. To meet this objective, we are working to redirect WMD scientists, engineers and technicians to peaceful work and reduce WMD complexes by downsizing facilities and creating sustainable civilian alternatives. Through the Russian Transition Initiatives Program, we have engaged over 14,000 former weapons scientists at over 200 institutes across the FSU in peaceful and sustainable commercial pursuits, attracting \$162M in private-sector matching funds and over \$140M in venture capital and other investments, created 25 new businesses in the closed cities, and facilitated the downsizing of Russia's nuclear weapons complex.

Late last year, Secretary Abraham established the Nuclear and Radiological Threat Reduction Task Force, which represents another important step in combating the threats posed by radiological dispersion devices or “dirty bombs”. We created this Task Force to identify, secure, store on an interim basis, and facilitate the permanent disposition of high-risk radiological materials that could be used as a radiological dispersal device, both in the United States and overseas; and identify the most vulnerable research reactors worldwide and develop an action plan to mitigate these vulnerabilities. Working in close concert with foreign countries and the International Atomic Energy Agency, or IAEA, this Task Force will ensure that the NNSA has the capability to address the full spectrum of radiological threats, including locating and securing vulnerable radiological materials overseas, and recovering and securing unwanted and abandoned radioactive materials within the United States that pose security and health risks. The activities of the Nuclear and Radiological Task Force will now be under the GTRI Initiative.

Bolstering border security as a second line of defense is another important component of our strategy. To implement this core mission, we develop and employ nuclear detection equipment at key border crossings, airports, and ports, including major seaports or “megaports,” worldwide. We also work hard to assist and train customs officials at home and abroad to detect the illicit trafficking of nuclear and radiological materials as well as identify dual-use commodities that might be used in WMD programs. Our hard work and cooperative efforts are paying dividends. For example, we have installed radiation detection equipment at 39 sites in Russia to detect, deter and interdict the trafficking of nuclear and radioactive materials. Russia has also supplemented our cooperative border security efforts by upgrading and installing similar radiation detection equipment at many more of their prioritized border checkpoints. We maintain radiation detection equipment in more than 20 countries in the Baltics, Central and Eastern Europe, Central Asia, and the Mediterranean. As mentioned, the Megaports Initiative is currently working at the Port of Rotterdam in The Netherlands and the Port of Piraeus in Greece.

We are not alone in our efforts, as U/S Bolton has noted. The international community and recipient countries have responded with strong support to advance our mutual nonproliferation interests. The G-8 Global Partnership has committed twenty billion dollars over the next ten years to work on nonproliferation issues in Eurasia. We are working cooperatively with our G-8

partners to leverage the funding that we have committed to Russia and the work in which we are involved. In another program, we are working with India and Pakistan to help them cooperatively work to reduce regional tension and find means to stop cross-border infiltration and avoid conflict.

Our cutting-edge research and development program improves the United States' ability to detect and deter WMD proliferation and strengthen treaty regimes such as the Nuclear Non-Proliferation Treaty. Our R&D programs serve as the technical base that provides operational agencies – including the Department of Defense and the Intelligence Community – with innovative systems and technologies to meet their nonproliferation missions. For example, we have tested laser-based remote sensing systems to detect and characterize effluents from suspect WMD production facilities, and are designing miniature synthetic aperture radar sensors to fly on board unmanned aerial vehicles.

Our technology-base programs yielded several radiation detection systems now being used by the Department of Homeland Security, and evaluated at the test bed that we established at the Port Authority of New York and New Jersey. And we have developed and produced nuclear explosion monitoring sensor payloads for deployment on Global Positioning System and Defense Support System satellites, began designing the next-generation of space-based sensors, and are developing new tools to lower the threshold for detecting the yield of any nuclear explosion by two orders of magnitude. We continue to seek out improved solutions to emerging proliferation problems, and to coordinate our efforts with our U.S. government partners.

Strengthening international nonproliferation and export control regimes is another essential cornerstone of our efforts. We support U.S. nonproliferation treaties, initiatives, and agreements and work to strengthen international safeguards to detect clandestine nuclear programs and diversion of nuclear material from declared programs. By working with our international partners, we have accomplished a great deal to further the world's nonproliferation regime. Some of our recent accomplishments include Secretary Abraham's signing of the Statement of Intent on Peaceful Uses of Nuclear Energy and Nuclear Nonproliferation and Counter terrorism

with Chairman Zhang Huazhu of the China Atomic Energy Authority this January in Beijing. In addition, we opened a Cooperative Monitoring Center in Amman, Jordan that will serve as a regional forum to discuss technical solutions to proliferation and other regional security problems. And we are spearheading changes to Nuclear Supplier Group Guidelines to make the prevention of nuclear terrorism an explicit export control objective.

To reduce stockpiles and available quantities of nuclear materials, the United States is working with Russia to irreversibly blend-down at least 500 metric tons of highly enriched uranium (HEU) from dismantled warheads. Over 200MT has been eliminated. We are also working with our Russian counterparts to shut down the three reactors in Russia that are still producing weapons-grade plutonium, and we are coordinating with them to return Russian-origin fresh and spent HEU fuel to Russia. We further reduce quantities of weapons-usable HEU by converting research reactors in the United States and abroad to use low-enriched uranium (LEU) and working to eliminate 174 metric tons of HEU in the United States.

The NNSA has also worked on a number of international operations to remove at-risk materials from vulnerable sites worldwide. We worked proactively with our colleagues at the Departments of State and Defense and international partners to dismantle Libya's WMD infrastructure. Currently, we are playing a leading technical role in the support of the operation to verify the dismantlement of Libya's nuclear program, and are playing a similar role in preparing for the complete, verifiable, and irreversible dismantlement of North Korea's nuclear programs, in the event of a major breakthrough. In 2003, we helped remove 17 kilograms of Russian-origin HEU from Bulgaria and returned it to Russia for safe storage. We also worked with Russia and the IAEA to return approximately 14 kilograms of fresh Russian-origin HEU from Romania to Russia to be down-blended and used for civil nuclear purposes.

Our final core mission objective is to mitigate risks at nuclear facilities worldwide. To reach this goal, we are providing assistance to Russia and Eurasian countries to establish enhanced emergency response programs, and we are working cooperatively with Russia to improve the safety and security of its nuclear weapons during transportation and storage in connection with dismantlement. We are focused on improving nuclear emergency management practices

worldwide by working with the IAEA and other western countries. For example, we worked to strengthen the IAEA's notification capability in the event of a nuclear emergency and are assisting Ukraine, Russia and Japan in establishing emergency management training programs.

Challenges

Preventing the proliferation of WMD materials, technology, and expertise is a major undertaking, and developing a multi-layered approach to address these threats has not been without its challenges. In implementing our nonproliferation programs, we continue to face formidable obstacles.

Looking back at what our program has accomplished on a number of nonproliferation fronts in Russia and other former Soviet states in the short amount of time that has elapsed since the breakup of the Soviet Union is really quite remarkable. At the same time, given the scope of our work and need for our programs to address the complexities of today's proliferation threat, we do face challenges including liability issues, transparency and assurances, access, and concluding contracts and agreements.

Since our nonproliferation programs are cooperative in nature, the progress we make is largely dependent on complex negotiations with Russia and other countries. Consequently, we will continue to face challenges in our work, particularly in Russia. I will now discuss these challenges in more detail.

LIABILITY

United States and Russian nonproliferation programs must have adequate liability protection for contractors performing work in Russia. Currently, the two sides disagree on the form of liability protection and this disagreement has resulted in the interruption of a few of our programs, including Plutonium Disposition and Nuclear Cities Initiative. We regret we have not made as much progress as we had hoped. While differences over liability have held up our efforts

relating to disposal of surplus weapon-grade plutonium both here and in Russia, the Administration is committed to this important nonproliferation program and has been addressing this issue at the highest levels. The Administration decided in early May to continue its support of the program by pursuing measures to allow cooperation to proceed on the design and licensing phase for Russia's plutonium disposition fuel fabrication facility pending resolution of liability for the construction and operations phases.

TRANSPARENCY AND ASSURANCES

Achieving adequate transparency is an ongoing problem for many U.S. nonproliferation initiatives with the Russian Federation. Assuring that we are, in fact, securing the materials and facilities we think we are will always be a challenge. The NNSA will continue to work both bilaterally and multilaterally to ensure that our mutual goals are met and that cooperative programs remain accountable, are preventing the proliferation of WMD, and promote long-term self-sustainability.

ACCESS

Nonproliferation programs often require access to other countries' most sensitive nuclear facilities. In Russia we have remarkable access to less sensitive sites. While we have had success, we must continue to work to gain access to Russia's more sensitive sites and facilities. Secretary Abraham and Russian Director Rumyantsev of the Federal Atomic Energy Agency have established a working group to address these issues. We are testing new procedures for access to more sensitive Minatom facilities in a pilot project. Reaching agreement on access to these sites is a major challenge, but is one of the final steps to secure the large amounts of nuclear material remaining. After access agreement is reached, we will assure that its terms are honored.

CONTRACTS AND AGREEMENTS

Finally, concluding contracts and agreements is a complex process. Even after there is agreement in principle to undertake a given nonproliferation program, actually implementing such a program requires time to bear fruit. Achieving concurrence on written agreements to move forward is often the first challenge to overcome. After the requisite agreements are in place and agreed to by both parties, objective and realistic milestones have to be developed before any contract can be awarded, and performance metrics established to address how those milestones will be met. Overall program success is incumbent on sound fiscal stewardship, and we believe that we are taking the necessary steps to effectively maximize program success rates.

There are a number of steps we have undertaken to meet these challenges. First, the Secretary of Energy has developed a close relationship with the Director of the Federal Atomic Energy Agency and overcoming these challenges in the nonproliferation arena has been a priority. Secretary Abraham intends to continue to work constructively with Director Rumyantsev. Second, at the working level, experts from our programs leverage over a decade of experience and relationships with their Russian counterparts to resolve contentious issues through sustained negotiations.

Conclusion

To summarize, I would again draw your attention to the progress our program has made in recent years and the acceleration with which we have expanded our activities to meet the complex and unpredictable security threats of our time. In doing so, we have strengthened the security of our nation and are making the world a safer place. Working in concert with other U.S. Government agencies, the NNSA will continue to promote high-level political commitment among our cooperative country counterparts to establish an effective, comprehensive capability that can proactively react to an evolving threat environment. Our focus is on stemming the proliferation of WMD materials, technology, and expertise, and we will continue to work diligently and responsibly to counter that threat.

Mr. Chairman and members of this Committee, this concludes my prepared statement. I would be pleased to answer any questions that you and members of this Committee may have.

