



MARCH 4, 2003

U.S.-RUSSIAN COOPERATIVE THREAT REDUCTION AND NON-PROLIFERATION PROGRAMS

U.S. HOUSE OF REPRESENTATIVES, COMMITTEE ON ARMED SERVICES

ONE HUNDRED EIGHTH CONGRESS, FIRST SESSION

HEARING CONTENTS:

Opening Statement

Duncan Hunter [\[View PDF\]](#)
Committee Chairman

Witness Testimony

J.D. Crouch II [\[View PDF\]](#)
Assistant Secretary of Defense for International Security Policy

Linton Brooks [\[View PDF\]](#)
Acting Administrator, National Nuclear Security Administration

Paula A. DeSutter [\[View PDF\]](#)
Assistant Secretary of State, Bureau of Verification and Compliance

David Steensma [\[View PDF\]](#)
Deputy Assistant Inspector General, Auditing, U.S. Department of Defense

Joseph A. Christoff [\[View PDF\]](#)
Director, International Affairs and Trade Team, U.S. General Accounting Office

Additional Material

Fact Sheet: Solid Rocket Motor Disposition Facility [\[View PDF\]](#)

COMPILED FROM:

- <http://armedservices.house.gov/comdocs/schedules/2003.shtml>

PRESS RELEASE

House Armed Services Committee Duncan Hunter, Chairman

FOR IMMEDIATE RELEASE

March 4, 2003

CONTACT

Harald Stavenas

Meghan Wedd

(202) 225-2539

OPENING REMARKS OF CHAIRMAN DUNCAN HUNTER

Full Committee Hearing on U.S. Cooperative Threat Reduction and Non-Proliferation Programs

Today, the committee will receive testimony on the Department of Defense U.S. Cooperative Threat Reduction and Department of Energy Nuclear Non-Proliferation programs. These programs combined comprise about \$1.75 billion of the national defense budget being requested by the President for Fiscal Year 2004.

In 1991, following the dramatic end of the former Soviet empire, the world – and the United States in particular – faced an unprecedented historical opportunity to directly reduce the threats posed by the vast arsenal of strategic weapons the Soviet Union left behind.

Using imagination and persuasion, a key group of members of Congress gave birth to a series of initiatives designed to capitalize on this opportunity. By engaging the emerging former Soviet states with a novel bargain, we entered into new strategic partnerships designed to reduce this dangerous arsenal of strategic weapons by diverting U.S. defense dollars for this purpose.

Looking just at the DOD Cooperative Threat Reduction or CTR program, now twelve years and \$7 billion later, it is without dispute that this program has accomplished a great deal to live up to its objectives. However, it also clear that – as is the case eventually with most government programs – the CTR program has strayed from its original purpose at the same time that deeply disturbing instances of mismanagement and negligence are emerging.

The purpose of this hearing today is to review the state of these programs by examining how they have evolved from the initial focus on the short-term high-priority elimination of former Soviet-era strategic nuclear systems, to today's constantly expanding scope which includes all manner of weapons of mass destruction-related activities, sometimes only tangentially related to the original purpose or to the principle of reducing direct military threats to the United States.

We shall also review how it is that the DOD CTR program bankrolled two hugely expensive building projects in Russia that have led to almost 200 million of U.S. defense dollars being wasted without achieving an ounce of threat reduction as intended.

– continued –

Finally, we will examine the \$1.75 billion budget request for fiscal year 2004 which calls for an overall increase of 24 percent over the previous fiscal year, while at the same time reducing the funds proposed for the elimination of former Soviet nuclear strategic systems.

These questions and others deserve the careful attention of the Committee and this Congress. If we are to continue to support diverting billions of dollars from the U.S. defense budget for these activities, we must ensure that the investment can be directly traced to an actual tangible reduction in military threats. This is the context which we must use to evaluate this program, as we have an obligation to ensure that the original “novel bargain” of 1991 still passes muster today.

###



**STATEMENT OF
DR. J.D. CROUCH II
ASSISTANT SECRETARY OF DEFENSE FOR
INTERNATIONAL SECURITY POLICY**

**BEFORE THE 108TH CONGRESS
HOUSE ARMED SERVICES COMMITTEE**

4 MARCH 2003

COOPERATIVE THREAT REDUCTION PROGRAM

Thank you for inviting me to discuss the Department of Defense Cooperative Threat Reduction program (CTR), and the President's request for fiscal year 2004 CTR funding.

The CTR program is a product of Congressional action - the Soviet Nuclear Threat Reduction Act of 1991, which directed DoD to assist the states of the former Soviet Union in dismantling, destroying, consolidating and securing Soviet-era weapons of mass destruction and means of their delivery. As we think about how to change CTR to meet changed security challenges, we have to look back carefully over a record of accomplishment, yet one with many hard lessons. As we plan for the future, we must look ahead with a realistic vision of what can and cannot be done with CTR recipients.

This committee has been instrumental in helping DoD focus its CTR efforts on projects with the greatest potential benefit to US security. The oversight role you have played has also helped ensure that our CTR investments have been effective and used for their intended purposes. Your involvement has also helped us convince recipients of CTR assistance that they need to abide by their commitments.

Old and New Factors Guiding CTR. As we look ahead, there are a number of key factors that have not changed since the first days of CTR implementation:

- Russia continues to hold the single largest stock of WMD in the world, representing a significant proliferation risk to the United States, its friends and allies.
- FSU states may be willing to eliminate or secure some of their WMD materials, but are not doing so on their own.

We also note several new factors as we plan for the future, and take account of many lessons learned.

- Proliferation of WMD to terrorist organizations is now as much of a threat as proliferation of WMD to rogue states.
- Porous borders in the FSU offer the potential for illicit transit of WMD and related materials to terrorist organizations and their sponsors.

- The September 2002 *National Security Strategy* and the December 2002 *National Strategy to Combat Weapons of Mass Destruction* highlighted the significant role nonproliferation and threat reduction programs play in preventing rogue states and terrorists from acquiring WMD and related materials, technology and expertise.
- We now know that every assumption, expectation and schedule for a project must be verified repeatedly.

We have learned that, with respect to Russia in particular, there are difficult challenges to providing assistance that is designed first and foremost to serve United States national security interests.

Confidence and Credibility. The year since I last testified to Congress on CTR has been a difficult one for the program.

At this time last year, Russia had just told us that a facility built with approximately \$106 million in CTR assistance would have no use. The missile fuel it was intended to neutralize had been diverted to the Russian commercial space program. The waste in US tax dollars represented by the so-called "heptyl" facility situation was inexcusable.

The heptyl situation was a wake-up call. We impressed on the Russian government at all levels the gravity of the situation that their negligence had created. But more importantly, we looked inward at how the program has been managed, and found ways to better protect CTR investments.

- We asked the DoD Inspector General to review the program. The first phase of the IG's report was completed in September 2002. OSD has worked closely with the IG, which has joined the CTR executive review team in meetings with Russian officials.
- We instituted a program of semi-annual "executive reviews" with Russian agencies that serve as executive agents for CTR projects. These reviews, of which two have already been conducted, revalidate project plans and permit more direct, senior level input on CTR to the Russian bureaucracy.
- We analyzed all pending CTR projects for risks that were similar to the heptyl facility situation - reliance on good faith Russian promises or assumptions - and are currently working to convert such undertakings to formal, legal agreements. At least two of these four agreements should be signed by the end of this month.
- In the wake of the heptyl situation, we reaffirmed some key management practices that have protected US investments in the past: CTR does not provide direct cash grants to recipient governments; most CTR prime contractors are US companies, and when any Russian contractors are used today, they are hired on a firm, fixed-price basis.
- We have also reaffirmed the need for transparency and access to confirm requirements for, and use of, CTR assistance. For example, we pressed the Russian MoD for agreements guaranteeing access to loosely guarded nuclear weapons storage sites and transshipment areas where CTR would like to assist with security and inventory control systems. The site access agreements were recently approved as a prerequisite for CTR assistance.
- In addition, negotiations continue on an agreement guaranteeing DoD access to the fissile material storage facility being built with CTR assistance. This agreement will provide for access during loading of the facility and permanently thereafter to ensure that only weapons-grade material is being

stored.

Another illustration of the difficulty of dealing with another country's infrastructure relates to local politics. DoD officials were informed that local leaders in Russia's Udmurt Republic had reversed their prior position and would bar construction of a solid-rocket motor destruction facility. This facility was intended to support the ambitious decommissioning schedule for Russia's mobile SS-24 and SS-25 missiles. CTR had invested some \$14 million in the Udmurt site, near the city of Votkinsk. CTR had also invested approximately \$85 million in designs and testing for the rocket motor disposal facility to have been built at Votkinsk.

The Votkinsk situation is similar to the heptyl situation in one respect. A significant US non-proliferation investment was jeopardized.

However, the Votkinsk situation is different from the heptyl situation in many other ways. Our information is that the Russian federal government made significant attempts to secure the necessary land and environmental permits from local officials. In addition, the Russian executive agent has come up with its own alternatives to the Votkinsk facility, as well as some of its own funding. Moreover, Russian officials were fully transparent with us regarding the local political problems as soon as they began brewing last year. Finally, over 400 SS-24 and SS-25s are still scheduled to begin decommissioning later this year: as opposed to the heptyl situation, there remains a proliferable commodity that the US has an interest in destroying.

A final decision on whether or how CTR might provide additional assistance to facilitate these goals has not been made. Yet, we are again confronted with a potentially significant loss of CTR investment.

The past year has been extremely frustrating. It serves as a reminder that we need to do better internally; I think we have moved quickly to put better management controls in place. But the past year also highlights how hard it is to pursue this type of program in a state like Russia, even if we do everything correctly.

Implementing Lessons Learned. One of the key lessons learned is that CTR recipients are not always all alike. The Administration's recent implementation of the program recognized that in the case of Russia, we cannot conduct business as usual. For example, for fiscal year 2002, Russia was not certified as eligible for CTR assistance, while all other states for which the funding was requested were certified.

Russia was not certified because the President could not confirm Russian compliance with biological and chemical weapons agreements as required by the National Defense Authorization Act of 1993. This was a departure from years past, and all new assistance for Russia was suspended for much of 2002.

Congress granted the President's request for authority to waive the certification requirements. The President exercised this authority with respect to Russia for 2002 and 2003 because the benefit to US national security of CTR assistance was deemed to outweigh the concerns about Russian behavior. Obviously, we take the authority Congress gave us to waive these restrictions very seriously, and must continually weigh the benefits of executing the waiver against the costs.

This Administration revised CTR's four central objectives last year. The current objectives are:

- Dismantle FSU WMD and associated infrastructure;

- Consolidate and secure FSU WMD and related technology and materials;
- Increase transparency and encourage higher standards of conduct;
- Support defense and military cooperation with the objective of preventing proliferation.

These revised objectives guide CTR activities as we ensure the program also supports the global war on terrorism through defense and military cooperation on border security, and the biological and chemical weapons proliferation prevention initiatives.

CTR can make a valuable contribution to the global war on terrorism. We have taken the expertise developed from WMD dismantlement in the FSU and are turning it toward some of the most important threats President Bush has outlined in the fight against terrorism. We are expanding the biological weapons proliferation prevention program and focusing on the most proliferable types of chemical weapons. We are also leveraging CTR's experience to address the porous borders in the non-Russian former Soviet, a potentially significant trafficking area for WMD.

We are also looking beyond Russia and the Soviet legacy. The Administration is proposing legislation that would give the President authority to use up to \$50 million annually in CTR funds outside the FSU to resolve critical proliferation threats, or to take advantage of opportunities to achieve long-standing nonproliferation goals. This proposal recognizes that the world has changed since CTR began and that the program should change with it to best protect US interests. We contemplate using this authority where DoD has a sizable presence, or in close coordination with other departments to maximize the expertise US agencies can bring to bear against a proliferation threat.

Russia. The United States would like to see Russia become a full partner in the Global War on Terrorism and combating WMD proliferation; comply fully with its arms control and nonproliferation obligations; and safely and securely store its nuclear weapons, fissile material and dangerous pathogens. This is a vision for Russia, parts of which CTR may help realize. The reality tells us that we must be very cautious, and find new ways to protect US investment in CTR projects.

Russia: Strategic Offensive Arms Elimination (SOAE). The FY 2004 budget request includes \$57.6 million for SOAE, a \$12.5 million decrease from FY 2003, reflecting a carryover of unobligated funds from previous years. The carryover results principally from the 2002 delay in certifying Russia for CTR assistance. SOAE assists Russia in eliminating strategic delivery systems and infrastructure. SOAE assistance is framed as an incentive for Russia to draw down its former Soviet nuclear forces. One of the larger project areas under SOAE relates to Solid Propellant ICBM/SLBM and Mobile Launcher Elimination, where \$25.9 million is requested for FY 2004. \$18.7 million is requested for SLBM Launcher Elimination and SSBN Dismantlement. This is a \$7.3 million increase from FY 2003, resulting from our plan to dismantle two SSBNs in FY 2004 as opposed to one in FY 2003.

CTR's Nuclear Weapons Storage Security program assists Russia with safe and secure storage for nuclear warheads. We requested \$48.0 million in the FY 2004 budget for this program. The bulk of the funds, \$47.9 million, are directed toward the Site Security Enhancements project, which provides urgently needed security enhancements to Ministry of Defense (MOD) nuclear weapons storage sites and temporary transshipment points for movement of deactivated warheads. As noted above, we concluded agreements with the MoD last month that will guarantee CTR personnel the access necessary to oversee security upgrades at

these sites.

We have requested \$23.2 million for the Nuclear Weapons Transportation Security program, which provides safe and secure transport of nuclear warheads from deployed sites to dismantlement or enhanced security storage sites. This is a \$3.6 million increase over the FY 2003 budget. The increase will support Russia's improved efforts to draw down its nuclear stockpile pursuant to the Moscow Treaty. The FY 2004 budget request for the Weapons Transportation Safety Enhancements project area is \$5.7 million greater than for FY 2003. This will enhance safe and secure transport, to include purchase of ten replacement warhead transportation cars. Russia agreed to destroy two unusable warhead transport cars at its own expense in exchange for each new car CTR provides.

To assist Russia in providing a secure, centralized storage facility for fissile material removed from nuclear weapons, CTR is building a Fissile Material Storage Facility (FMSF) at Mayak. This project is over 92 percent complete and requires no additional funding. DoD is negotiating a transparency agreement to ensure that only weapons-grade material is stored at the FMSF.

Russia: Biological Weapons Proliferation Prevention (BWPP). Overall funding requested for the BWPP program remains roughly at the FY 2003 level, \$54.2 million. FY 2003 increases in BWPP funding reflected the Administration's interest in combating biological weapons proliferation as part of the war on terrorism.

DoD anticipates obligating approximately \$31 million in FY 2004 for BWPP activities in Russia.

These activities will include additional cooperative research projects with Russian scientists and institutes that are designed to prevent proliferation of BW expertise, enhance transparency, improve standards of conduct and leverage the extensive expertise of the former Soviet bioweapons complex. Additional efforts are planned to dismantle and eliminate BW infrastructure in Russia as well as projects to enhance security against theft or accidental release of dangerous pathogens.

Russia: Chemical Weapons Destruction. The budget request for the Chemical Weapons Destruction (CWD) program in Russia is \$200.3 million, an increase of \$67.4 million. This reflects the President's direction to accelerate progress at the Chemical Weapons Destruction Facility (CWDF) project in Shchuch'ye (\$190.3 million). The Shchuch'ye project is a CW destruction facility for nerve agent-filled, man-portable, tube and rocket artillery and missile warheads. This facility will be able to destroy 1700 metric tons of nerve agent per year. \$126.6 million of FY 2003 funds will be obligated for Shchuch'ye, provided that Russia agrees to destroy all nerve agent weapons at Shchuch'ye. We expect to complete this agreement this month. The President sought and Congress granted authority to waive certification requirements related to the Shchuch'ye project. The President exercised this authority on January 10, 2003 because of proliferation concerns about the types of munitions to be eliminated there. However, the Administration continues to press Russia for a full and complete accounting of its chemical weapons stockpile, in addition to completing a practical plan for eliminating nerve agents.

CTR continues to assist Russia with dismantling and demilitarizing the former CW production facilities at Volgograd and Novocheboksarsk. CTR is also enhancing security for highly proliferable chemical weapons stored at Planovy/Shchuch'ye and Kizner. DoD already has provided interim security enhancements, and is in the process of installing comprehensive security upgrades that will be completed in 2003.

Non-Russian FSU States As with Russia, the vision for CTR assistance in the other FSU states is tempered by a mixed record of responsiveness. There are a

number of areas in which certain FSU states have demonstrated a significant commitment to cooperation and transparency. For example, Kazakhstan and Ukraine are free of nuclear weapons with the help of CTR assistance. On the other hand, final elimination of SS-24 missiles in Ukraine has taken far longer than originally foreseen.

Non-Russia FSU States: Elimination of Strategic Offensive Arms and WMD Infrastructure. Ukraine. We have requested \$3.9 million for CTR's Strategic Nuclear Arms Elimination program area in Ukraine. This will help fund construction of an SS-24 Propellant Disposition Facility for removal and elimination of solid fuel from SS-24 missile motors. DoD has successfully removed all SS-24 missiles from their silos, and eliminated all launchers and launch centers. The SS-24s have been disassembled and safely stored since January 2002. CTR will use prior year funds to continue elimination of Tu-142 Bear and Tu-22M Backfire bombers and KH-22 nuclear capable air-to-surface missiles.

For DoD's WMD Infrastructure Elimination program area in Ukraine, no new funds are requested for FY 2004. DoD will use FY2003 funds to eliminate nuclear weapons storage sites, liquid missile propellant facilities, and heavy bomber airbase infrastructure.

Kazakhstan. CTR's WMD Infrastructure Elimination program area assists Kazakhstan in providing safe and secure storage of fissile material and in destroying former nuclear weapons and liquid propellant storage sites. We are requesting no additional funding in FY 2004 and will rely instead on FY 2003 funds.

Non-Russian FSU States: Biological Weapons Proliferation Prevention (BWPP). DoD has concluded Biological Threat Reduction Implementing Agreements with Uzbekistan and Georgia and negotiated an agreement with Ukraine. We are also providing BWPP assistance to Kazakhstan under the WMD Infrastructure Elimination agreement. DoD already conducts BWPP projects in Kazakhstan and Uzbekistan and is planning to begin activities in Georgia and Ukraine in 2003.

- In Kazakhstan and Uzbekistan, CTR's BW Infrastructure Dismantlement and Restructuring program assists with destruction of WMD-related infrastructure. In Kazakhstan, CTR is helping eliminate the anthrax production facility in Stepnogorsk. The project has now entered into phase IV, which includes dismantlement of the facility. In Uzbekistan, CTR has implemented phase I of the destruction of the Soviet BW testing facility on Vozrozhdeniya Island. We believe this phase fully destroyed viable anthrax spores left in approximately 100 tons of anthrax weapons agent the Soviet military buried near the laboratory complex on the island in the late 1980's. DoD is working with Uzbekistan to determine whether additional work at Vozrozhdeniya is required.
- CTR's Collaborative Biological Research (CBR) projects in Kazakhstan and Uzbekistan help prevent the proliferation of BW expertise, enhance transparency, improve standards of conduct of former BW scientists and leverage their extensive expertise. There is currently one project in Kazakhstan and two in Uzbekistan. CTR plans to expand CBR projects to Ukraine and Georgia.
- In Kazakhstan, two CTR Biosafety and Biosecurity projects are (1) characterizing and protecting strain collections of dangerous pathogens at the Scientific Research Agricultural Institute in Otar, and (2) designing and constructing an earthquake- proof building to secure dangerous pathogens at the Kazakh Institute for Research on Plague Control in Almaty.

- The FY 2004 request calls for \$23 million for CTR's Bioattack Early Warning and Preparedness project. This new program area received 42% of the overall FY 2004 budget request for the BWPP program. Under this project, CTR will expand research cooperation with Ministry of Health institutes in Kazakhstan, Uzbekistan, Georgia and Ukraine to build infectious disease surveillance networks that will allow these countries and the US to better detect, characterize and monitor disease outbreaks and to consolidate pathogen collections in secure, DoD-accessible, institutes.

Weapons of Mass Destruction Proliferation Prevention Initiative (WMD-PPI). \$39.4 million is requested in FY 2004 to support this initiative, which is designed to enhance *non-Russian* FSU capabilities to prevent, deter, detect and interdict illicit trafficking in WMD and related materials. DoD is collaborating with other US agencies to develop an overarching US government strategic plan for export control and border security assistance to FSU states that will encompass assistance provided through this initiative. This initiative will build on the foundation created by the CTR Defense and Military Contacts program.

The 9/11 terrorist attacks, subsequent discoveries of terrorist plans to obtain WMD, and the need for a rapid expansion of border security efforts in Central Asia underscored the role that DoD could play through CTR in support of the war on terrorism. This initiative is designed to develop self-sustaining capabilities, not merely to provide equipment and services. This vision will require close coordination with other US agencies to ensure that recipient countries are developing the law enforcement and regulatory capabilities necessary for a comprehensive approach to WMD border security.

In implementing the WMD-PPI, DoD has developed projects designed to produce comprehensive operational capabilities based on the interagency approved US strategic plan and country/regional requirements. These projects will provide not only equipment and related training, but also self-sustaining operations and maintenance capabilities.

DoD is developing the following prototype projects through the WMD Proliferation Prevention initiative:

- A Caspian Sea maritime control capability in cooperation with Kazakhstan and Azerbaijan to interdict illicit trafficking in WMD and related materials.
- Supporting Ukraine's plans to develop mobile response teams to address WMD trafficking incidents between ports of entry on the land border with Russia.
- Completing deployment of fissile material portal monitors at key border crossings in Uzbekistan to detect illicit trafficking in nuclear materials.
- Developing a Regional Training Center to provide realistic training on border control operations and procedures to prevent illicit trafficking in WMD and related materials.

Conclusion. Since its inception, CTR has assisted with deactivation or elimination of a total of 6032 warheads and 847 ballistic missile launchers, 101 heavy bombers, 25 ballistic missile submarines, 510 air-to-surface nuclear missiles and 856 ballistic missiles. These are important achievements. The Administration is also acutely aware of the difficulties encountered by the program. The reality is that this program, which we undertake for our own national security purposes, comes with costs that we must bear if we continue to take advantage of this approach to threat reduction. This Administration believes that it is worth the cost. As we urge your continued support we pledge our efforts to ensure that additional non-proliferation achievements within, as well as outside, the FSU are

won through responsible stewardship of US resources.

House Armed Services Committee
2120 Rayburn House Office Building
Washington, D.C. 20515



**STATEMENT OF
LINTON F. BROOKS
ACTING UNDER SECRETARY OF ENERGY AND
ADMINISTRATOR FOR NATIONAL SECURITY
NATIONAL NUCLEAR SECURITY ADMINISTRATION
U.S. DEPARTMENT OF ENERGY
INTERNATIONAL SECURITY POLICY**

**BEFORE THE 108TH CONGRESS
HOUSE ARMED SERVICES COMMITTEE**

4 MARCH 2003

Thank you, Mr. Chairman and members of this Committee, for the opportunity to appear before you today to discuss the National Nuclear Security Administration's (NNSA) nonproliferation activities in Russia. Before addressing our specific activities, however, I want to say how critically important I consider this Committee's contributions, both past, present and future, to the United States efforts to stem the spread of weapons, materials, technology, and expertise. I appreciate the Committee's support and look forward to our continued work together.

I also want to note that progress on our nonproliferation activities in Russia is benefitting immensely from the cooperative relationship with Russia that the President has so masterfully crafted with his counterpart, President Putin. In supporting this new relationship, both my programs and the United States as a whole have benefitted greatly from the support and leadership of the Secretary of Energy, Spencer Abraham. On each of the five occasions that Secretary Abraham has met with Russia's Minister of Atomic Energy Alexander Rumyantsev, he has worked hard to accelerate and expand our programs in Russia and to clear away bureaucratic obstacles to progress on issues such as access rights and taxation concerns. And just last month, I sent my Acting Deputy Administrator for Defense Nuclear Nonproliferation to meet with senior Russian officials from both the Ministry of Atomic Energy as well as the Ministry of Defense to reiterate our commitment to removing obstacles and to maintain our momentum. The seriousness by which we take this threat is further reflected in the President's FY04 budget request for the NNSA's nonproliferation program, which is the largest in its history and a 30% increase over our FY03 budget.

Although I feel confident about where our relationship with Russia is headed and the progress we are making, we are hardly out of the woods. As the President stated in his State of the Union address, Atoday the gravest danger in the war on terror, the gravest danger facing America and the world, is outlaw regimes that seek and possess nuclear, chemical, and biological weapons... They could give or sell those weapons to terrorist allies, who could use them without hesitation. In the hands of terrorists or others who wish to cause the United States harm, these weapons of mass destruction would have unimaginable consequences. This is why the NNSA is working harder than ever to ensure that nuclear weapons and its materials are secure at their source and the world's largest stockpiles of weapons-usable nuclear materials and warheads remains securely in Russia.

Thus, the speed and effectiveness by which the NNSA's nonproliferation programs achieve their objectives of reducing the proliferation risk of nuclear materials, warheads, technology and expertise in Russia and other states of the former Soviet Union directly contributes to the security of the United States.

Now, I want to describe specifically what we are doing in Russia to address this threat.

International Nuclear Materials Protection and Cooperation

First and foremost, the NNSA is working to improve as quickly as possible under-secured nuclear weapons-usable material and warheads in Russia, amounting to approximately 600 metric tons (MTs) of fissile material and thousands of warheads. In addition, we have secured and continue to secure trucks and railcars carrying nuclear weapons-usable materials through hardening and other measures; and we are taking steps to consolidate nuclear material at fewer locations, reducing its vulnerability to theft or sabotage.

As a result of our acceleration efforts, the NNSA now has a target date of 2008 for the completion of security improvements to the under-secured weapons-usable nuclear material in Russia, therefore transitioning to a sustainability phase two years ahead of schedule.

In addition to weapons-usable material, the NNSA is working in close coordination with the Department of Defense to improve the security of thousands of under-secured Russian nuclear warheads. Specifically, we initiated cooperation with the Russian Navy to improve the security of its nuclear warheads in 1998 and plan to complete our security improvements by 2006. In late 2002, Russia's Strategic Rocket Forces requested cooperative assistance from the NNSA to improve the security of their nuclear warheads that are suffering from similarly poor security, and work has already begun.

Regarding border security cooperation, the NNSA is working with the Russian Federation State Customs Committee to install radiation detection equipment at Russia's borders in order to prevent nuclear smuggling and illicit trafficking. NNSA is in the process of accelerating these efforts by installing radiation detection equipment at approximately 20 additional strategic transit and border sites in Russia by the end of this year. Installations in Central Asia and the Caucasus are also underway, and we have taken responsibility for maintenance of detection systems in 19 countries (in Eastern/Central Europe, Central Asia) previously managed by the State Department. The same equipment that detects weapons usable materials will also detect source materials that could be used in a radiological dispersal device (RDD).

On this subject, we have also taken preliminary steps to secure the most vulnerable radioactive source materials - Soviet-origin Radioisotope Thermal-electric Generators (RTGs), seed irradiators, and other devices abandoned in Russia and other countries of the Former Soviet Union. We are undertaking this work as part of a Tripartite Initiative with Minatom and the International Atomic Energy Agency (IAEA). Our strategy is to focus on the most potent, long-lived, and dispersible material in the most vulnerable conditions. However, we have no desire to let this work expand unchecked. Our approach is to address extremely vulnerable cases with low-cost upgrades while focusing international attention on the problem and leveraging the resources of all countries to reduce risks globally. We are co-sponsoring an international conference on RDDs with the IAEA next month to increase international focus on this issue. Finally, as I said earlier, we believe detection of trafficking in source materials is a key component in our strategy, and our Second Line of Defense Program is well positioned to meet this objective.

The NNSA is also helping to consolidate nuclear material in Russia by reducing the number of locations where this material is stored, which in turn greatly reduces its vulnerability to theft or sabotage. For example, by the end of 2003, we will have removed all weapons-usable material from an additional 24 buildings, thus improving security. Under this program, we have also converted 3.5 MT of HEU to LEU and we hope to eliminate an additional metric ton by the end of this year.

Russian Transition Initiative (RTI)

The NNSA also addresses the risk of adverse migration of WMD expertise from the former Soviet Republics through its Russian Transition Initiative (RTI). The RTI partners former Soviet weapons scientists with U.S. industry partners on projects selected for their commercial potential, while also assisting the Russians in downsizing their nuclear weapons complex and opening the closed nuclear cities to commercial ventures. Through its highly successful Initiatives for Proliferation Prevention (IPP) program, RTI has garnered over \$125 million in matching resources from U.S. industry partners. This amounts to \$3 in private sector funds for every \$2 in U.S. Government funding. In addition, private investment funding has contributed over \$90 million to further augment its technology commercialization efforts. It is safe to say that no other nonproliferation program in the US Government has attracted the level of private equity funds to help commercialize project results than has RTI.

By finding commercial, peaceful employment for former Russian weapons scientists, we not only dramatically reduce the talent pool available to states that would employ those individuals for evil ends, but we also create new sources of technology and commercial opportunities for U.S. industry.

These scientists are involved in many programs that will play an important role in how we address today's threats. For example, needle-free injector systems for mass inoculations; light-weight radiation detectors to detect smuggling of nuclear materials; high-technology, high-volume filters to remove dangerous pathogens from public water supplies; and other innovative projects will have direct relevance to our counter-terrorism efforts and will be a tremendous resource to have on our side, as we seek innovative solutions to the threats that confront us today.

RTI's nuclear weapons complex downsizing efforts has also had a highly successful year. The program has negotiated an access arrangement that now allows for regularized and expedited access to the closed cities. The Avangard nuclear weapons assembly/disassembly facility no longer exists as a separate entity. Weapons assembly has ceased and the remnants of the Avangard operation, including conversion activities, are being absorbed into the All-Russian Research Institute for Experimental Physics (VNIIEF). The transition of workers and delineation of responsibilities will be careful and gradual, and will continue at least through May. The closure of Avangard fulfills a commitment made by MinAtom to RTI in August of 2001. Conversion efforts by the RTI at Avangard are acknowledged by the Russians to have accelerated the promised closure.

In sum, it is fair to say that NNSA is in its strongest position it has ever enjoyed, with respect to the access we stand to gain and our ability to facilitate the downsizing of Russia's nuclear complex

Warhead Safety and Security Exchange Agreement

NNSA is the executive agent for the 1994 U.S.-Russian Federation Government-to-Government Warhead Safety and Security Exchange Agreement in which the

NNSA, Department of Defense and the U.S. National Laboratories engage the Russian Ministries of Atomic Energy and Defense and the Russian Institutes in unclassified technical cooperation in three areas. First, joint work is conducted to enhance the safety and security of nuclear weapons during the process of dismantlement, as well as during storage and transportation. Second, technologies are developed and tested to provide for more effective measurement tools during the dismantlement process, which may have the potential to enhance the transparency of nuclear reductions. Third, cooperation is ongoing to explore technologies and procedures with applications for counterterrorism involving nuclear weapons and nuclear materials. In this third area cooperation ranges from the investigation of the dispersal of nuclear materials, to vessels that can be used to contain the detonation of high explosives, to the development of advanced monitoring equipment for the detection of nuclear materials and high explosives.

Elimination of Weapons Grade Plutonium Production (EWGPP)

NNSA is also working hard to eliminate weapons-grade plutonium production in Russia by shutting down three reactors in Russia that are still producing plutonium and by providing the local communities with fossil fuel plants to replace their required heating and electricity needs. In FY2003, responsibility for the program transferred from DoD to NNSA, and next week Secretary Abraham and Minister Rummyantsev will sign the two plutonium production shut-down agreements next month in Vienna.

Highly Enriched Uranium Transparency Program

We also continue to support the Highly Enriched Uranium Transparency Program that monitors the conversion of Russian weapons-grade uranium into low enriched uranium for use as commercial reactor fuel in the United States. Under this program, 171 MTs of Russian highly enriched uranium has been down blended to LEU in Russia and delivered to the U.S. as of December 2002. This is equivalent to the destruction of approximately 6,500 nuclear warheads.

Plutonium Disposition

We are also ramping up our efforts to dispose of 34 metric tons of Russian surplus weapons-grade plutonium, as well as an equal amount in the United States. Both the United States and Russia will turn this material into mixed oxide, or MOX, fuel, for use in existing nuclear reactors. We are working hard to be able to begin building facilities, both here and in Russia, for making the MOX fuel in FY 2004. As a result of these efforts, we will eliminate enough plutonium to make thousands of nuclear weapons.

Accelerated Materials Disposition (AMD)

A separate but complementary effort to disposing of Russia's 34 MTs of surplus material is a new initiative developed by Presidents Bush and Putin at the 2002 Moscow Summit. This new initiative involves multiple options to dispose of additional Russian highly enriched uranium and plutonium over and above materials covered by existing agreements. We are currently drafting agreements with Russia for two such options, the purchase of highly enriched uranium from Russia to supply to selected U.S. research and test reactors and the purchase of downblended Russian HEU for a LEU stockpile in Russia.

Global Partnership

International support is important to the overall success of our programs. In June 2002, G-8 countries committed to support a Global Partnership against the spread of weapons and materials of mass destruction by providing \$20 billion

over the next ten years to assist Russia and eventually others in reducing proliferation threats. About half of the amount pledged will come from existing or planned U.S. threat reduction programs. Other G-8 countries will provide the remaining amount. While I can't be specific today about financial pledges that are still being worked internally by other governments, I can say that we believe that substantial additional funds will be provided through this mechanism by the time of the next G-8 summit in June, 2003. Among the areas of particular interest to DOE that may receive new funding from other G-8 countries are plutonium disposition and the employment of former weapons scientists.

Equally important as the new funding is the endorsement by the G-8 leaders, including President Putin, of principles that should govern cooperative programs under the Global Partnership. These principles explicitly call for transparency, access, liability protections, tax exemption of assistance, and other measures that we regard as necessary elements for successful threat reduction partnership with Russia. Since last summer, we have had several rounds of senior-level discussion among G-8 officials about the implementation of these principles. I wish I could tell you that we have secured Russian agreement to satisfactory approaches in all of the areas covered by the principles, but at this point all I can say is that our discussions are continuing. I am convinced, however, that the strong support expressed by all of the other G-8 countries for the Kananaskis principles will make an impression on Russian leaders, and increase our chances for securing their agreement to acceptable implementation measures.

Conclusion

In conclusion, I would like to make three fundamental points:

- *First*, our work to pro-actively and cooperatively engage Russia, as well as other countries, is vital if we are going to be successful at preventing terrorists and other rogue entities from acquiring nuclear weapons usable material, warheads and/or expertise. The consequences if we do not are unacceptable;
- *Secondly*, our work to achieve these nonproliferation goals has and will likely never be easy. Whether it is trying to gain access to Russia's nuclear warhead sites or nuclear weapons assembly plants, or gaining the a comprehensive accounting of what is truly the world's largest stocks of weapons-usable material, our mission is going to be challenging every step of the way;
- *Thirdly*, there should never be a question as to whether we will have set backs, but how effectively we respond to those set backs when they occur. Much of what we are doing in Russia has never been done, much less tried before, and challenges and set backs must be anticipated. However, considering the potential consequences if a terrorist were successful in acquiring a weapon or weapons-usable material from one of these sites, we have no other choice but to act.

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 the Committee may have.

House Armed Services Committee
2120 Rayburn House Office Building
Washington, D.C. 20515



**STATEMENT OF
THE HONORABLE PAULA A. DESUTTER
ASSISTANT SECRETARY OF STATE
BUREAU OF VERIFICATION AND COMPLIANCE**

**BEFORE THE
HOUSE ARMED SERVICES COMMITTEE
U.S. HOUSE OF REPRESENTATIVES**

4 MARCH 2003

Mr. Chairman, it is an honor to appear here today to discuss Cooperative Threat Reduction and the responsibilities of my bureau, the Bureau of Verification and Compliance. The CTR effort and the work of verification are complementary. Programs initiated and funded through CTR are intended to secure weapons of mass destruction (WMD) sites throughout Russia, fund destruction of weapons of mass destruction, and prevent the transfer of weapons, dangerous materials, and technologies to terrorists and terrorist sponsor states. The job of verification is to assess whether a particular nation has met its obligations and commitments and to seek to reinforce efforts to bring noncompliant parties back into full compliance with their obligations.

I would like to note at the outset that we have had excellent cooperation with Senator Lugar, the Chairman of the Senate Foreign Relations Committee, and his staff, on compliance issues related to CTR, particularly on Russian compliance with the Chemical Weapons Convention. I would also note that the President's granting of a waiver this January for continuing CTR funding reinforces the fact that there is still much to be accomplished. As we look to the future, I believe we should ensure that the funding provided for securing sites and destroying WMD material should also increase our certainty that the most serious threat has been lessened and the purpose achieved.

As the Assistant Secretary for Verification and Compliance, I have the lead responsibility for tracking, determining, and reporting on areas of noncompliance. My bureau also prepares the President's Annual Report on Adherence to and Noncompliance with Arms Control and Nonproliferation Agreements and Commitments. My comments are drawn from my knowledge of that report and others that the Verification and Compliance Bureau has coordinated. I am particularly concerned about Russian compliance, access to the most sensitive sites -- whether biological, chemical, or nuclear -- and providing for improvements in transparency. I'll also address the emphasis and need for greater transparency as we prepare to ratify the Moscow Treaty.

That the Soviet Union violated its arms control obligations is beyond dispute. What is important now is that we gain adequate information to give confidence that those who inherited the Soviet WMD programs are committed to their security and elimination. While access could confirm our assessments of past noncompliance, it is also a necessary element in the path back into compliance. I'll offer several examples.

Russian Noncompliance with the Biological Weapons Convention and the Chemical Weapons Convention

- We believe, based on available evidence, that Russia continues to maintain an offensive biological weapons program in violation of the Biological and Toxin Weapons Convention (BWC).
- We believe that the Russian Federation has not divulged the full extent of their chemical agent and weapon inventory, and that the declaration is incomplete with respect to chemical weapons production, development facilities and chemical agent and weapons stockpiles. Such activities are inconsistent with the Chemical Weapons Convention (CWC).

As this Committee knows, the Soviet Union had an offensive biological weapons program in violation of the Biological and Toxin Weapons Convention. The Soviet program was the world's largest and consisted of both military facilities and civilian research and development institutes.

In the late 1980's and early 1990's, over 60,000 people were involved in the research, development, and production of biological weapons in the Soviet Union. The annual production capacity was several thousand tons of various agents. In 1992, the Russian government publicly acknowledged the Soviet program and committed to ending the former Soviet biological weapons program. We knew the program was massive and that it would be no easy matter for Russia to terminate the offensive program. Our noncompliance findings in the early 1990's reflected this. However, starting perhaps with Russia's 1992 declaration, provided under confidence building measures it agreed to as part of the BWC Review Conference, there were problems. Their 1992 Declaration was incomplete and misleading. In an effort to resolve our concerns, a U.S., UK, Russia "Trilateral Process" was initiated in 1992. As outlined in the Joint Statement, it called for a series of confidence-building visits and information exchanges designed to demonstrate progress toward achieving openness. However, this process did not resolve all U.S. concerns and broke down in the mid-1990's. While there has been downsizing and restructuring of the biological weapons program, and research and production facilities have seen severe cuts in funding and personnel, some key components of the former Soviet program may remain largely intact. Of particular concern is the possibility that some facilities, in addition to being engaged in legitimate activity, may be maintaining the capability to produce biological weapons agents.

Previous assessments of Russian compliance have highlighted the dichotomy between what appears to be the commitment of key members of the Russian leadership to resolve BWC compliance issues and the continued involvement of "old hands" in BWC Protocol negotiations and in what Russia describes as its defensive biological weapons program. We appreciate expressions of commitment. However, what we need is for these expressions to be translated into practice.

A report prepared in support of a CTR waiver in December, 2002, also notes "There continues to be a profound lack of openness about the offensive BW program inherited from the Soviet Union . . . The 1992 declaration also failed to list all of the sites that supported the Soviet offensive BW program and that retain at least some of their offensive capability." The same report outlines progress made in terms of cooperation-related visits to several key Soviet-era civilian BW production facilities in Russia, but observed "Russia continues, however, to deny Western access to certain biological facilities, including those believed to have been associated with the Soviet offensive BW program."

There is no disagreement about the nature of the program or what is required to address the problem. We need greater access -- not only to the biological

weapons sites -- but to chemical weapons activities as well.

Focus on Noncompliance with the CWC

In becoming a State Party to the Chemical Weapons Convention, Russia accepted legal obligations to destroy its chemical weapons stockpile and to forego the development or possession of chemical weapons. This includes the chemical weapons stockpile and program remaining in Russia at the breakup of the USSR. In recent years, the Russian Federation has taken steps to strengthen its chemical weapons destruction program, including consolidating responsibility under civilian leadership and significantly increasing funding. Progress has been slow and Russia has had to request extensions on its chemical weapons destruction deadlines from the Organization for the Prohibition of Chemical Weapons (OPCW). With international assistance, Russia, in mid-December 2002, started destroying its Category 1 blister agent stockpile. However, we remain concerned that Russia may not have fully declared its chemical weapons stockpiles and facilities. In addition, Russia may maintain chemical weapons production mobilization capabilities. For example, Moscow television commentary related to a July 1998 OPCW inspection of the Khimprom Chemical Weapons Production Facility (CWPF) in Novocheboksarsk noted that, "in line with safety regulations, the so-called mobilization capacities are being maintained. This is costing Khimprom vast sums of money even though this is a matter for the federal government." Clearly, any offensive chemical weapons program is a violation of the Chemical Weapons Convention.

Ending Russia's Offensive CW Activities

The United States continues to work closely with Russia in an attempt to resolve our concerns with Russia's CWC declaration. We have an intense dialogue on these issues, even if we have yet to achieve satisfaction on our concerns. On several occasions, Secretary Powell, Under Secretary of State for Arms Control and International Security, John Bolton, and other senior U.S. officials have stressed the importance of resolving these concerns, particularly related to Russia's CW stockpile, with senior Russian officials, including the Chairman of the State Commission on Chemical Disarmament.

The United States and the Russian Federation also hold periodic bilateral meetings at the expert level, with political oversight. The last experts' meeting on declaration issues was held in February 2002. The primary topic of discussion during that meeting entailed our concerns with the Russian chemical weapons stockpile. In response to official U.S. questions about Russia's stockpile declaration, Russia provided some additional information and a proposal for U.S. experts to review documentation related to its declared CW stockpile. Consequently, a team of experts visited Moscow in early December 2002 to conduct the documentation review. However, the Russian Federation only offered for review documents already available to the United States through the Organization for the Prohibition of Chemical Weapons.

The United States also proposed to Russia that U.S. experts conduct site visits as part of our plan to resolve concerns related to the Russian chemical weapons stockpile. The U.S. proposal requests a series of short-notice visits, with unimpeded access, to undeclared suspect Russian chemical weapons sites. The United States also provided detailed procedures governing how such visits would be conducted and made clear that such visits were not reciprocal. To date Russia has only agreed to site visits at declared chemical weapons storage and destruction facilities. The United States has made clear our concern is not with declared facilities, but with sites that were not declared under the CWC. Consultations are continuing on this U.S. proposal. A letter from Senator Lugar

to Foreign Minister Ivanov reinforced our concerns. We explained the situation to Senator Lugar's staff and, as a result, the Senator raised this issue on several occasions with Foreign Minister Ivanov. I raise this as an example of how we can work together to use the CTR program, the reports, and the waiver process to try to bring Russia into compliance.

Russia is continuing to revise its previous plan for destroying its stockpile of nerve agents. On July 5, 2001, the Russian government approved the revised chemical weapons destruction plan (Resolution No. 510) that amends the initial Russian plan of March 21, 1996, (Resolution No. 305). Russia has provided the United States and the OPCW numerous details on the planned destruction of its nerve agent stocks. However, the United States is continuing to seek additional clarification as the Russian plan continues to evolve.

Gaining access to sites of concern is not only critical for programs that have been identified, it underscores the need for transparency that will define our relationship with Russia in the future.

We have over the past two years seen surprising cooperation between the United States and Russia, as Presidents Bush and Putin have defined a new course forward for our bilateral relationship. One striking example of this is our ongoing cooperation in the global war on terrorism, which includes, among other things, significantly increased exchanges of intelligence. We hope to bring this kind of cooperation and transparency to address our BWC and CWC concerns as we further develop our relations with Russia.

The Moscow Treaty

Another example of cooperation between the United States and Russia is the Treaty of Moscow, signed by the two Presidents last May, which provides for significant reductions in strategic offensive forces. The Moscow Treaty recognizes a new strategic relationship between the United States and Russia based on the understanding that the principles, which will underpin our relationship, are mutual security, openness, cooperation, and predictability. This understanding played an important role in our judgments regarding verification.

As was discussed with the Senate in support of Moscow Treaty ratification, the United States will gain transparency into the disposition of Russia's strategic nuclear warheads and the overall status of reductions in its strategic forces through our own intelligence resources, bilateral assistance programs, including CTR, the START Treaty, and the work of the Consultative Group for Strategic Security (CGSS) and the Moscow Treaty's Bilateral Implementation Commission. We expect Russia to gain transparency in much the same way.

Information obtained through START's verification regime, including its data exchanges and short-notice on-site inspections, and U.S. national intelligence resources will continue over the course of the decade to add to our body of knowledge regarding the disposition of Russia's strategic nuclear warheads and the overall status of reductions in Russia's strategic nuclear forces. Moreover, the ongoing U.S. programs to assist Russia in eliminating its strategic offensive arms and enhancing the safety and security of nuclear warheads in Russia will provide additional transparency into Russia's reduction efforts.

We also recognize that more contacts and exchanges of information could be useful. The CGSS met in September 2002 and the Working Groups have been meeting as well. The Bilateral Implementation Commission will meet once the Treaty enters into force.

It is possible that the Russian Federation may need additional nonproliferation

and threat reduction assistance as it reduces its strategic nuclear warheads under the Moscow Treaty. As these discussions develop, we intend to continue to work with Russia, under the Cooperative Threat Reduction (CTR) program. We hope that the U.S. assistance programs remain as robust as they have in the past, since they have the opportunity to contribute both to threat reduction (safety and security), as well as to our body of knowledge, as we implement treaties.

Conclusion

Mr. Chairman, thank you for the invitation to speak today. I believe that the Cooperative Threat Reduction programs can contribute to verification of arms control and proliferation agreements and commitments. These programs are another means to bring Russia into compliance with their obligations and commitments. Much has been done, but as the President has made clear in his decision not to certify Russian commitment to compliance, much remains to be done.

The Executive Branch's efforts to accomplish these goals are multiplied by active support of the Legislative Branch in these endeavors.

So Mr. Chairman, Members of the Committee, I thank you for your interest and for inviting me to discuss the verification and compliance perspective on the CTR programs.

House Armed Services Committee
2120 Rayburn House Office Building
Washington, D.C. 20515

March 4, 2003



Testimony

Statement
of
David K. Steensma
Deputy Assistant Inspector General
for Auditing
Office of the Inspector General
Department of Defense
to the
House Committee on Armed Services
on
U.S.-Russian Cooperative Threat Reduction
and Non-Proliferation Programs

D-2003-059-T

Department of Defense
Office of the Inspector General

Quality

Integrity

Accountability

Report Documentation Page

Report Date 12 Mar 2003	Report Type N/A	Dates Covered (from... to) -
Title and Subtitle Testimony: Statement of David K. Steensma Deputy Assistant Inspector General for Auditing Office of the Inspector General Department of Defense to the House Committee on Armed Services on U.S.-Russian Cooperative Threat Reduction and Non-Proliferation Programs	Contract Number	
	Grant Number	
	Program Element Number	
Author(s)	Project Number	
	Task Number	
	Work Unit Number	
Performing Organization Name(s) and Address(es) OAIG-AUD(ATTN: AFTS Suggestions) Inspector General, Department of Defense 400 Army Navy Drive (Room 801) Arlington, VA 22202-2884	Performing Organization Report Number D-2003-059T	
Sponsoring/Monitoring Agency Name(s) and Address(es)	Sponsor/Monitor's Acronym(s)	
	Sponsor/Monitor's Report Number(s)	
Distribution/Availability Statement Approved for public release, distribution unlimited		
Supplementary Notes		
Abstract		
Subject Terms		
Report Classification unclassified	Classification of this page unclassified	
Classification of Abstract unclassified	Limitation of Abstract UU	
Number of Pages 16		

Mr. Chairman and Members of the Committee:

Thank you for the opportunity to appear before the Committee today and address your questions regarding our reviews of the Cooperative Threat Reduction Program. Although progress is being made in destroying weapons of mass destruction, there is a need for additional management oversight of the country to country agreements, and more cooperative sharing of program risks.

Congress enacted Public law 102-228, the Soviet Nuclear Threat Reduction Act of 1991, to reduce the threat posed by the weapons of mass destruction remaining in the territory of the former Soviet Union. Objectives of the Act are to “destroy nuclear weapons, chemical weapons, and other weapons; transport, store, disable, and safeguard weapons in connection with their destruction; and establish verifiable safeguards against the proliferation of such weapons.” The Act designated DoD as the executive agent for what came to be called the Cooperative Threat Reduction Program. The current objectives of the Cooperative Threat Reduction Program, are to:

- “Dismantle former Soviet Union weapons of mass destruction and associated infrastructure.

- Consolidate and secure former Soviet Union weapons of mass destruction and related technology and materials.
- Increase transparency and encourage higher standards of conduct.
- Support defense and military cooperation with the objective of preventing proliferation.”

The annual reports on the Cooperative Threat Reduction Program show steady and consistent progress in destroying weapons of mass destruction within the former Soviet Union countries.

On March 18, 2002, the Deputy Secretary of Defense requested that the Office of the Inspector General of the Department of Defense:

- review problems that had been identified with the Cooperative Threat Reduction Program project to convert liquid propellant removed from intercontinental ballistic missiles in the Russian Federation (Russia) into a more benign substance;

- provide advice on protecting the Department of Defense from similar situations on other United States-funded projects that rely on Russian assurances; and,
- review the organizational arrangements between the Cooperative Threat Reduction Policy office within the Office of the Under Secretary of Defense for Policy and the Cooperative Threat Reduction Directorate at the Defense Threat Reduction Agency.

On September 30, 2002, we issued Report No. D-2002-154 “Cooperative Threat Reduction Liquid Propellant Disposition Project,” that presented our conclusions on the project, including the nonavailability of the liquid propellant that prevented use of the facility built to convert the liquid propellant. I will discuss the issues identified in our review of the liquid propellant disposition project. In addition, I will also comment on our prior and ongoing work on the Cooperative Threat Reduction Program.

Liquid Propellant Project

The liquid propellant disposition project is managed under an implementing agreement commonly referred to as the Strategic Offensive Arms Elimination-Russia implementing agreement. The implementing agreement supplements the

umbrella agreement that was signed on June 17, 1992, and is known as the “Agreement Between the United States of America and the Russian Federation Concerning the Safe and Secure Transportation, Storage, and Destruction of Weapons and the Prevention of Weapons Proliferation.”

Russia requested U.S. assistance to dispose of liquid fuel (unsymmetrical dimethyl hydrazine) as well as the oxidizers (dinitrogen tetroxide and mélange). In Russia, the liquid fuel and dinitrogen tetroxide are known as heptyl and amyl, respectively. Russia needed assistance with the disposal of heptyl and amyl (liquid propellant) to facilitate the disposal of intercontinental ballistic missiles and submarine-launched ballistic missiles. The liquid propellant disposition project includes removing the heptyl and amyl from missile sites, transporting the material to storage sites, and converting the material into commercial products.

Costs of the Liquid Propellant Disposition Program

As of July 2, 2002, the Department of Defense had obligated \$164.5 million to assist Russia in the disposal of heptyl and amyl. That amount included:

- \$94.4 million for the heptyl disposition facility and associated shipping and logistical support.

- \$51.1 million for equipment (flatbed railcars, intermodal containers and cranes) and transportation services related to movement and storage of liquid propellant disposal, and transition, operation, and maintenance of the disposition facility.
- \$17.8 million for designing and site preparation of the amyl disposition system.
- \$1.2 million to maintain and secure the heptyl disposition facility, while the Department of Defense considered the future of the facility.

Heptyl and Amyl Disposition Facilities

The Defense Threat Reduction Agency's predecessor, the Defense Nuclear Agency, awarded a contract to Thiokol Corporation in April 1995 to design and construct the heptyl disposition systems to convert 30,000 metric tons of heptyl to industrial solvent at Krasnoyarsk, Russia. The heptyl disposition systems were ready for testing in January 2002 (pictures of the facility are at Attachment 1).

However, at that time and unknown to the Defense Threat Reduction Agency, there was insufficient heptyl available to cost effectively operate the plant.

Subsequently, the facility was never certified for use.

In June 1999, the Defense Threat Reduction Agency awarded a contract to Bechtel National, Incorporated, to design, fabricate, and test up to two mobile systems that would convert 43,000 metric tons of amyl and 80,000 metric tons of mélange into

nitric acid. Later, the Department of Defense agreed to a Russian request that the systems be permanent and located in the Russian cities of Aleksin and Krasnoyarsk. In February 2002, the Department of Defense removed the mélange-processing requirement because mélange was not considered a strategic missile oxidizer.

Department of Defense Learns that Heptyl is Not Available for Conversion

According to the Director, Cooperative Threat Reduction Directorate, Defense Threat Reduction Agency, the initial indication that heptyl would not be available for conversion was in January 2002 during informal discussions with Russian Aviation and Space Agency officials. Following those discussions, on February 13, 2002, the Director telephoned the Director of the Missile Technologies Division, Russian Aviation and Space Agency to obtain an explanation and to request a formal written response. According to the record on the telephone discussion, the Russian Aviation and Space Agency official confirmed that “the reprocessed heptyl was made available to the commercial Proton [commercial launch rocket] program and for missile development tests.” He also stated that although heptyl tank farms were almost dry, the Russian Ministry of Defense saw a continuing need for the heptyl disposition facility because of uncertainties surrounding the number of future space launches. In a

letter dated May 24, 2002, the Director of the Missile Technologies Division provided the official response for Russia. In explaining why the Department of Defense was not informed, the Director stated, “However, practically speaking, given the extreme uncertainty of the constantly changing situation, it was very difficult for Russia to inform you properly without harming Russia’s plans associated with strategic offensive arms elimination under START [Strategic Arms Reduction Treaty] I and II, since these plans made it possible to fairly fully load the two units being built in Krasnoyarsk with work.”

Russian Launches of Heptyl-Fueled Vehicles

During 1992 when the Department of Defense and Russian officials were initially making decisions on the disposal of heptyl and amyl, Russia was experiencing a decrease in the number of heptyl-fueled space launches. However, while negotiations continued on how to dispose of the heptyl and amyl from Russian missiles, the United States and Russia were also negotiating Russia’s entry into the commercial space launch business. In September 1993, the two countries signed the “Agreement Between the Government of the United States of America and the Government of the Russian Federation Regarding International Trade in Commercial Space Launch Services.” That 1993 agreement, amended in January 1996, allowed Russia to launch up to 20 principal payloads for international customers through December 2000, when the agreement expired. Between

January 1995 through June 2002, Russia launched 102 heptyl-fueled rockets using an estimated 12,500 metric tons of heptyl. In addition, Russia could have used more than 12,500 metric tons of heptyl during that time for test firing of the rocket engines. According to a trip report prepared by a chemical engineer with the Science Applications International Corporation, officials from the Russian Aviation and Space Agency stated that Russia test fires each rocket engine using 100 percent of the fuel capacity.

Lack of Implementing Agreement Requirements

The agreements with Russia did not require Russia to provide the heptyl and amyl for conversion, including remedies for nonperformance, and did not provide the Department with adequate access rights to where the heptyl and amyl were stored.

The Strategic Offensive Arms Elimination-Russia implementing agreement did not require Russia to provide the heptyl and amyl for conversion, and neither that implementing agreement nor the umbrella agreement, provided adequate access rights to the Department of Defense. Also, the Strategic Offensive Arms Elimination-Russia implementing agreement did not include any remedies should Russia fail to use the United States provided equipment, services, and training. Agreements should have required that Russia provide the heptyl and amyl for

conversion and provide the Department of Defense with access to heptyl and amyl inventories as well as included remedies for nonperformance.

Audits and Examinations

The umbrella agreement gives the Department of Defense the right to examine Russia's use of equipment, services, and training provided by the United States upon request and according to procedures to which both countries agree. The Strategic Offensive Arms Elimination-Russia implementing agreement provides procedures for conducting audits and examinations. That implementing agreement requires that the Department provide a 30-day written notice prior to performing an audit and examination, as well as specifying that audits and examinations are limited to no more than three each calendar year, and concurrently at no more than two sites. Both the umbrella and implementing agreements did not allow the Department access to conduct inventory inspections of heptyl and amyl at Ministry of Defense tank farms.

The Defense Threat Reduction Agency has not performed an audit and examination on equipment provided to Russia for transporting and storing the heptyl and amyl since June 1999. The three prior inspections performed prior to that date were not fully effective. Two inspections identified that Russia improperly used some intermodal containers for mélange, but those inspections

were not thorough enough to identify the extent of improper use of the equipment. The audits and examinations were limited to comparing the serial numbers on intermodal containers against the list of serial numbers the project manager provided, identifying the location, and noting the condition of each container. The audit and examination team did not verify the contents of the intermodal containers because team members did not have the equipment needed to safely examine the intermodal containers.

Program Risks

As early as December 1992, Russian officials had informed Department of Defense officials of plans to use some of the heptyl removed from ballistic missiles for space launches. At that time, Russian officials estimated that only 3,000 metric tons would be consumed. In 2000, the Defense Threat Reduction Agency started to include general and specific risks in its project plans for the heptyl disposition facility. General risks for that project included cost; project access, including the number of yearly visits by the project manager; time since the last audit and examination; site access restrictions; and project status. The specific risks for the heptyl disposition project were finding and training qualified Russian operators, and operational performance of the disposition facility. However, the project plans, which are updated annually, did not identify as a risk that Russia might use heptyl for other purposes. Other possible uses of heptyl

should have been identified as a risk for three reasons. First, Russian officials informed Department officials in 1992 of their plans to use for space launches some of the heptyl removed from ballistic missiles. Second, the Russian Aviation and Space Agency did not control the heptyl owned by the Ministry of Defense. Third, the Defense Threat Reduction Agency did not have the authority to inventory the heptyl that Russia was storing at Ministry of Defense sites.

Idle Disposition Facility

The heptyl disposition facility will not be used for its intended purpose. The Department of Defense now faced the decision on what to do with the heptyl disposition facility. After the Defense Threat Reduction Agency was notified about Russia's heptyl use, the Defense Threat Reduction Agency placed a stop-work order on the heptyl and amyl disposition facilities while the Department developed and considered its options. In February 2002, the Office of the Under Secretary of Defense for Policy drafted a list of options and associated costs for the heptyl and amyl disposition facilities. In July 2002, the Defense Threat Reduction Agency terminated the contract while the amyl disposition facility was still in the design phase. On February 4, 2003, the Deputy Secretary of Defense approved the "dismantlement and salvage where possible" of the heptyl facility.

Other Corrective Actions Taken

The Office of the Under Secretary of Defense for Policy is to be commended for establishing an Executive Review program to reduce program risks. The Executive Review program is designed to increase and improve communication between the Department of Defense and the Russian executive agents. The Executive Review program offers opportunities for the Department and Russian executive agents to identify and implement changes to project assumptions and objectives, obtain legally binding commitments, and avoid expenditure of funds if Russia cannot meet its commitments.

Other Cooperative Threat Reduction Program Reviews

A list of other prior reviews of the Cooperative Threat Reduction Program is at Attachment 2.

We are currently reviewing four other projects in the Cooperative Threat Reduction Program: the Biological Weapons Proliferation Prevention Program; the Chemical Weapons Destruction Facility; the Fissile Material Storage Facility; and the Solid Rocket Motor Disposition Facility. In addition, we are reviewing

the organizational arrangements within the Department for the Cooperative Threat Reduction Program. We plan to issue reports on those reviews later in 2003.

Thank you for considering the views of the Office of the Inspector General on the Cooperative Threat Reduction Program. This concludes my testimony.

Pictures of the Heptyl Disposition Facility Krasnoyarsk, Russia



Aerial view of the Heptyl Disposition Systems and Infrastructure



Ground View of the Heptyl Fuel Disposition System

Attachment 1

Office of the Inspector General, DoD
Reports on the Cooperative Threat Reduction Program

Report No. 03-OIR-03, "Classified Report," January 7, 2003

Report No. D-2002-154, Cooperative Threat Reduction Program Liquid Propellant
Disposition Project, September 30, 2002

Report No. D-2002-033, Management Costs Associated with the Defense
Enterprise Fund, December 31, 2001

Report No. D-2001-074, Cooperative Threat Reduction Program, March 9, 2001

Report No. D-2000-176, Defense Enterprise Fund, August 15, 2000

Attachment 2

GAO

Testimony

Before the Committee on Armed Services,
U.S. House of Representatives

For Release on Delivery
Expected at 2:00 p.m., EST
Wednesday, March 5, 2003

WEAPONS OF MASS DESTRUCTION

Observations on U.S. Threat Reduction and Nonproliferation Programs in Russia

Statement of Joseph A. Christoff, Director,
International Affairs and Trade



Mr. Chairman and Members of the Committee:

I am pleased to be here today to discuss efforts by the Departments of Defense, Energy, and State to help Russia secure, destroy, and dismantle weapons of mass destruction (WMD) and prevent their proliferation.

After the breakup of the Soviet Union in 1991, Russia inherited the world's largest arsenal of nuclear, chemical, and biological weapons. The Soviets' extensive military resources and autocratic rule allowed it to maintain and secure this vast arsenal. As Russia adopted economic reforms and moved toward an open society, its economy and central controls deteriorated, making it difficult to maintain security at these weapons sites. Recognizing these difficulties, the Congress authorized funds for programs to help destroy Russian weapons and improve WMD security. The events of September 11th have increased U.S. concerns that terrorists might obtain nuclear materials or weapons at poorly secured sites.

GAO has reviewed U.S. threat reduction and nonproliferation efforts in Russia since 1993. Today, I will present our overall observations on the progress and key challenges of these programs based on published GAO reports since 1993.¹

Summary

Over the past decade, the United States has responded to increased proliferation risks in Russia by providing \$6.4 billion for Departments of Defense, Energy, and State programs in the former Soviet Union. The United States has made important progress in three areas. First, the Department of Defense helped destroy 463 Russian nuclear submarines, long-range bombers, and strategic missiles to support Russia's efforts to meet treaty requirements. Second, the Department of Energy installed security systems that helped protect 32 percent of Russia's weapons-usable nuclear material. Third, the United States supplemented the income of thousands of Russian weapons scientists so they would be less inclined to sell their skills to countries of concern.

However, U.S. threat reduction and nonproliferation programs have consistently faced two critical challenges: (1) the Russian government has not always paid its agreed-upon share of program costs and (2) Russian

¹Appendix I contains a list of reports GAO has published since 1993 on U.S. threat reduction and nonproliferation efforts in the former Soviet Union.

ministries have often denied U.S. officials access to key nuclear and biological sites. Regarding program costs, Russia did not pay, for example, its previously agreed-upon share of \$275 million to design and build a nuclear storage site at Mayak. As of January 2003, the United States plans to spend \$385 million for a scaled-down version of this site. Russia has also failed to pay operation and maintenance costs for security equipment the United States installed at sites with weapons-usable nuclear material. As a result, DOE plans to spend an additional \$171 million to ensure that this equipment is properly maintained. Regarding access, Russia will not allow DOD and DOE the level of access they require to design security improvements, verify their installation, and ensure their proper operation. As a result, the agencies have been unable to help protect substantial portions of Russia's nuclear warheads and weapons-usable nuclear material. In addition, many Russian biological sites that store dangerous biological pathogens remain off-limits to the United States. Russia justifies these access restrictions on the grounds that it is protecting its national security interests.

Background

Russia inherited the world's largest arsenal of weapons of mass destruction after the collapse of the Soviet Union. This arsenal includes approximately:

- 30,000 nuclear weapons,
- 600 metric tons of weapons-usable nuclear materials,
- 40,000 metric tons of declared chemical weapons,
- 2,100 systems (missiles and bombers) for delivering weapons of mass destruction, and
- About 40 research institutes devoted to the development and production of biological weapons.

In addition, the Soviet collapse also left 30,000 to 75,000 senior nuclear, chemical, and biological weapons scientists and thousands of less experienced junior scientists without full-time employment.

To date, Congress has authorized more than \$6.4 billion for several programs to help Russia and other countries in the former Soviet Union reduce the proliferation threats posed by their weapons of mass destruction.

In 1992, Congress authorized DOD to establish the Cooperative Threat Reduction Program. The program remains the largest and most diverse U.S. program addressing former Soviet weapons of mass destruction

threats. Most Cooperative Threat Reduction projects (1) destroy vehicles and launchers that deliver nuclear weapons and their related facilities and (2) secure Russia's nuclear weapons and materials to prevent their proliferation.

The Department of State helped establish and, with DOD, funded the International Science and Technology Center in Moscow to help fund peaceful research carried out by underpaid weapons scientists in 1994. The Center supplements the income of scientists, purchases equipment for scientific research, and supports programs to help scientists identify and develop commercially viable research projects. The Center's sponsors include the United States, the European Union, and Japan.

In 1995, DOE launched the Material Protection, Control, and Accounting Program to help secure former Soviet weapons-usable nuclear materials. It later created the Initiatives for Proliferation Prevention Program and the Nuclear Cities Initiative to engage unemployed weapons scientists in various peaceful commercial projects. The Department also has two other initiatives to reduce former Soviet stockpiles of weapons useable material. These programs are designed to convert highly enriched uranium and weapons-usable plutonium to fuels that can be used in civilian nuclear power plants.

In 1998, DOD initiated efforts to help secure Russian sites with dangerous biological pathogens in response to intensified efforts by Iran and other countries of proliferation concern to acquire biological weapons expertise and materials.² In 1999, Congress approved funds to begin enhancing security at Russia's chemical weapons storage sites.

U.S. Programs Have Made Progress in Three Areas

The United States has made progress in helping reduce threats from the weapons, materials, and personnel working in weapons development. First, the most important progress the United States has made to date has been in support of Russia's efforts to eliminate strategic nuclear delivery systems as required by the Strategic Arms Reduction Treaty (START). START I required Russia to reduce the number of delivery vehicles from 2100 to 1600.³ Further cuts are required under START II. Through the

²*Biological Weapons: Effort to Reduce Former Soviet Threat Offers Benefits, Poses New Risks* (GAO/NSIAD-00-138, Apr. 28, 2000).

³Under the terms of START I, Belarus, Kazakhstan, and Ukraine were required to eliminate their entire stockpile of about 400 strategic nuclear delivery vehicles.

Cooperative Threat Reduction program, the Department of Defense has helped de-fuel, transport, and destroy excess missiles and bombers, and destroy excess launchers.⁴ According to the Defense Threat Reduction Agency, 24 nuclear ballistic missile submarines, 44 long-range heavy bombers, and 395 intercontinental missiles that previously contained nuclear warheads have been destroyed as of 2002. These efforts have been successful because the United States and Russia had mutually agreed-upon goals rooted in START and the Russians provided relatively open access.⁵

The Department of Energy has made progress in securing Russia's plutonium and highly enriched uranium. As we reported in February 2001,⁶ DOE had installed systems that helped improve security over 32 percent of Russia's weapons-usable nuclear material. Much of DOE's progress was at Russian civilian and naval fuel storage sites. At those sites, DOE completed the installation of security systems at nearly 60 percent (73 of 125) of the buildings and had work under way at 26 percent (33 of 125) of the remaining buildings.⁷ In addition, within 2 years of beginning a program to help the Russian Navy secure its nuclear warheads, DOE had begun installing security systems at 41 of 42 sites. The installation of security equipment such as fences, sensors, video cameras, and access control systems at these sites has reduced the risk of theft of nuclear material and nuclear warheads.

The United States also seeks to reduce proliferation risks associated with under-employed, highly trained scientists who could be tempted to sell their expertise to terrorists or countries of concern. As we reported in May

⁴*Weapons of Mass Destruction: Status of the Cooperative Threat Reduction Program* (GAO/NSIAD-96-222, Sep. 27, 1996).

⁵*Weapons of Mass Destruction: U.S. Efforts to Reduce Threats from the Former Soviet Union*. GAO/T-NSIAD/RCED-00-119, Mar. 6, 2000.

⁶*Nuclear Nonproliferation: Security of Russia's Nuclear Material Improving; Further Enhancements Needed* (GAO-01-312, Feb. 28, 2001).

⁷Russia stores weapons-usable nuclear material at three types of sites. Civilian sites produce nuclear fuels and materials for civilian application; naval fuel sites store stockpiles of highly enriched uranium used in submarines and icebreakers; and the nuclear weapons complex fabricates, refurbishes, and dismantles nuclear weapons and components.

2001,⁸ the Departments of Defense, Energy, and State have supplemented the incomes of thousands of former Soviet weapons scientists. For example, in 2000, about 6,800 senior weapons scientists were engaged in research projects such as developing vaccines and devising techniques to enhance environmental cleanup. However, the U.S.-sponsored research generally provides only part-time employment for Russian scientists. Consequently, the departments know little about the scientists' activities outside these programs.

U.S. Threat Reduction Programs in Russia Face Key Challenges

Since 1991, U.S. threat reduction programs in Russia have faced two key challenges. First, Russia has not always adhered to agreements to pay its share of program costs, and second, Russia has not always provided the access DOD and DOE require to design security improvements, verify their installation, and ensure their proper operation.

Russia Has Not Always Provided Its Share of Funding for Programs

Three programs illustrate the difficulty of relying on Russia to provide agreed-upon funds for threat reduction programs. In 1992, Russia requested assistance from the United States to build a site to store nuclear material from dismantled warheads. DOD agreed to help Russia build a Pentagon-sized facility at Mayak to store the plutonium and limited its contribution to no more than one half (\$275 million) of the total estimated cost. However, as we reported in 1999,⁹ Russia did not fund its \$275 million share of the project. As a result, the United States, as of January 2003, plans to spend \$385 million to design and build a scaled-back version of the facility. In addition, as we testified in March 2000,¹⁰ the United States does not know if Russia will be able to pay the annual operating costs of more than \$10 million after the facility is completed in 2004.

Since 1994, DOD has been negotiating with Russia to design and build a destruction facility for chemical weapons. Under the terms of the

⁸*Weapons of Mass Destruction: State Department Oversight of Science Centers Program* (GAO-01-582, May 10, 2001) and *Nuclear Nonproliferation: DOE's Efforts to Assist Weapons Scientists in Russia's Nuclear Cities Face Challenges* (GAO-01-429, May 3, 2001).

⁹*Weapons of Mass Destruction: Effort to Reduce Russian Arsenals May Cost More, Achieve Less Than Planned* (GAO/NSIAD-99-76, Apr. 1999).

¹⁰*Weapons of Mass Destruction: U.S. Efforts to Reduce Threats from the Former Soviet Union* (GAO/T-NSIAD/RCED-00-119, Mar. 6, 2000).

Chemical Weapons Convention, Russia is required to destroy its entire chemical weapons stockpile by 2012. Russia estimates that it will cost \$3.5 to \$5 billion for multiple facilities to destroy this stockpile. In November 2001, we testified that DOD estimated that it will cost the United States \$890 million to design and build a single facility.¹¹ However, the successful completion of the project was based on the assumption that Russia will pay an additional \$750 million in operational costs and related infrastructure such as gas and water lines, storm sewers, and a rail line to link the destruction facility with a nearby chemical weapons storage site. However, through 2001, Russia had only provided \$25 million toward this effort.

Russia also apparently faces significant limitations on its ability to pay for the operation and maintenance of U.S.-provided security equipment such as cameras, electronic locks, and motion detectors. As we reported in February 2001,¹² when DOE began to help secure Russia's weapons-usable nuclear material in 1995, the agency assumed that Russia would be able to pay for the long-term operation and maintenance of the security systems DOE planned to install. However, DOE soon learned that Russian officials said they lacked the resources to pay for these costs. As a result, as of February 2001, DOE planned to spend \$171 million to cover the cost of equipment warranties, operating procedure development, and training. Without U.S. funding, the operation and maintenance of security systems at these sites would be reduced, leaving nuclear materials more vulnerable to theft.

Russia Has Denied DOD and DOE Access to Significant Nuclear and Biological Sites

Russia has not provided DOD and DOE the access to sites that they require to design security improvements, verify their installation, and ensure their proper operation. Russia justifies these access restrictions on the grounds that it is protecting its national security interests. As a result, DOD and DOE have been unable to help protect substantial portions of Russia's nuclear warhead stockpile and weapons-usable nuclear material. In addition, several Russian biological sites of potential proliferation concern have been off-limits to the United States. The following three examples illustrate the lack of access the agencies have encountered.

¹¹*Weapons of Mass Destruction: Assessing U.S. Policy Tools for Combating Proliferation* (GAO-02-226T, Nov. 7, 2001).

¹²GAO-01-312.

The United States has long-standing concerns about the security conditions at Russia's nuclear warhead sites. In 1997, DOD began efforts to help secure these sites. As we reported in June 2001,¹³ the Russian Ministry of Defense does not provide U.S. personnel with access to nuclear weapons storage sites. This has blocked DOD from installing security improvements such as fences, sensors, and access control systems to prevent outsiders from breaking in and employees from stealing on the inside.

As we reported in February 2001,¹⁴ DOE's lack of access to buildings in Russia's nuclear weapons complex is a significant challenge to improving security over weapons-usable nuclear material in Russia. DOE requires access to these buildings to design security systems and confirm their installation. The Russian Ministry of Atomic Energy had denied DOE access to 73 percent of the buildings with weapons-usable material in the nuclear weapons complex. As a result, DOE was unable to improve security over hundreds of metric tons of weapons-usable nuclear material.

The Russian government has refused to grant the United States access to biological facilities managed by the Ministry of Defense. As we reported in April 2000,¹⁵ the United States is concerned that offensive research may continue to take place at these facilities. It is believed that these sites maintain a national collection of dangerous pathogens, including Ebola and Marburg viruses. U.S. officials stated that they are concerned that dangerous pathogen stocks could be stolen and used for illicit purposes.

The Departments of Defense and Energy have worked with the Russian government over the years to gain access to these sites but with limited success. As a result, the United States employs alternatives to onsite access through the use of photographs and videotapes before and after the installation of security systems, visual inspections by a single member of a U.S. project team, and written certification by Russian site directors.

Mr. Chairman and Members of the Committee, this concludes my prepared statement. I will be happy to answer any questions you may have.

¹³*Cooperative Threat Reduction: DOD Has Adequate Oversight of Assistance, but Procedural Limitations Remain* (GAO-01-694, Jun. 19, 2001).

¹⁴GAO-01-312.

¹⁵GAO/NSIAD-00-138.

Contacts and Acknowledgments

For future contacts regarding this testimony, please call Joseph Christoff at (202) 512-8979. Gene Aloise, R. Stockton Butler, Joseph Cook, Lynn Cothorn, Muriel Forster, Beth Hoffman Leon, Hynek Kalkus, David Maurer, Maria Oliver, Jeffrey Phillips, Daniele Schiffman, F. James Shafer, and Pierre Toureille made key contributions to the reports on which this testimony is based.

GAO Related Products

Cooperative Threat Reduction Program Annual Report. [GAO-03-341R](#). Washington, D.C.: December 2, 2002.

Arms Control: Efforts to Strengthen the Biological Weapons Convention. [GAO-02-1038NI](#). Washington, D.C.: September 30, 2002.

Nuclear Nonproliferation: U.S. Efforts to Help Other Countries Combat Nuclear Smuggling Need Strengthened Coordination and Planning. [GAO-02-426](#). Washington, D.C.: May 16, 2002.

Cooperative Threat Reduction: DOD Has Adequate Oversight of Assistance, but Procedural Limitations Remain. [GAO-01-694](#). Washington, D.C.: June 19, 2001.

Weapons of Mass Destruction: State Department Oversight of Science Centers Program. [GAO-01-582](#). Washington, D.C.: May 10, 2001.

Nuclear Nonproliferation: DOE's Efforts to Assist Weapons Scientists in Russia's Nuclear Cities Face Challenges. [GAO-01-429](#). Washington, D.C.: May 3, 2001.

Nuclear Nonproliferation: Security of Russia's Nuclear Material Improving; Further Enhancements Needed. [GAO-01-312](#). Washington, D.C.: February 28, 2001.

Nuclear Nonproliferation: Implications of the U.S. Purchase of Russian Highly Enriched Uranium. [GAO-01-148](#). Washington, D.C.: December 15, 2000.

Biological Weapons: Effort to Reduce Former Soviet Threat Offers Benefits, Poses New Risks. [NSIAD-00-138](#). Washington, D.C.: April 28, 2000.

Weapons of Mass Destruction: Some U.S. Assistance to Redirect Russian Scientists Taxed by Russia. [NSIAD-00-154R](#). Washington, D.C.: April 28, 2000.

Cooperative Threat Reduction: DOD's 1997-98 Reports on Accounting for Assistance Were Late and Incomplete. [NSIAD-00-40](#). Washington, D.C.: March 15, 2000.

Nuclear Nonproliferation: Limited Progress in Improving Nuclear Material Security in Russia and the Newly Independent States. [RCED/NSIAD-00-82](#). Washington, D.C.: March 6, 2000.

Nuclear Nonproliferation: Status of Transparency Measures for U.S. Purchase of Russian Highly Enriched Uranium. [RCED-99-194](#). Washington, D.C.: September 22, 1999.

Weapons of Mass Destruction: Effort to Reduce Russian Arsenals May Cost More, Achieve Less Than Planned. [NSIAD-99-76](#). Washington, D.C.: April 13, 1999.

Nuclear Nonproliferation: Concerns With DOE's Efforts to Reduce the Risks Posed by Russia's Unemployed Weapons Scientists. [RCED-99-54](#). Washington, D.C.: February 19, 1999.

Nuclear Nonproliferation and Safety: Uncertainties About the Implementation of U.S.-Russian Plutonium Disposition Efforts. [RCED-98-46](#). Washington, D.C.: January 14, 1998.

Weapons of Mass Destruction: Review of DOD's June 1997 Report on Assistance Provided. [NSIAD-97-218](#). Washington, D.C.: September 5, 1997.

Cooperative Threat Reduction: Status of Defense Conversion Efforts in the Former Soviet Union. [NSIAD-97-101](#). Washington, D.C.: April 11, 1997.

Weapons of Mass Destruction: DOD Reporting on Cooperative Threat Reduction Assistance Has Improved. [NSIAD-97-84](#). Washington, D.C.: February 27, 1997.

Nuclear Safety: Status of U.S. Assistance to Improve the Safety of Soviet-Designed Reactors. [RCED-97-5](#). Washington, D.C.: October 29, 1996.

Weapons of Mass Destruction: Status of the Cooperative Threat Reduction Program. [NSIAD-96-222](#). Washington, D.C.: September 27, 1996.

Nuclear Nonproliferation: Status of U.S. Efforts to Improve Nuclear Materials Controls in Newly Independent States. [NSIAD/RCED-96-89](#). Washington, D.C.: March 8, 1996.

Nuclear Safety: Concerns With Nuclear Facilities and Other Sources of Radiation in the Former Soviet Union. [RCED-96-4](#). Washington, D.C.: November 7, 1995.

Weapons of Mass Destruction: DOD Reporting on Cooperative Threat Reduction Assistance Can Be Improved. [NSIAD-95-191](#). Washington, D.C.: September 29, 1995.

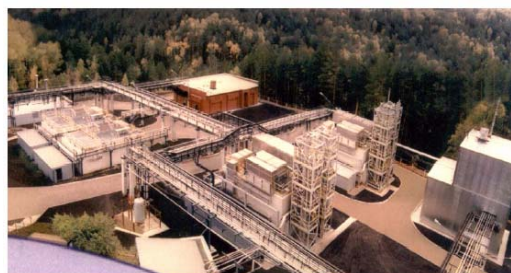
Weapons of Mass Destruction: Reducing the Threat From the Former Soviet Union—An Update. [NSIAD-95-165](#). Washington, D.C.: June 17, 1995.

Weapons of Mass Destruction: Reducing the Threat From the Former Soviet Union. [NSIAD-95-7](#). Washington, D.C.: October 6, 1994.

Nuclear Safety: International Assistance Efforts to Make Soviet-Designed Reactors Safer. [RCED-94-234](#). Washington, D.C.: September 29, 1994.

Soviet Nuclear Weapons: Priorities and Costs Associated with U.S. Dismantlement Assistance. [NSIAD-93-154](#). Washington, D.C.: March 8, 1993.

FACT SHEET: Liquid Propellant Disposition Project (KRASNOYARSK, RUSSIA)



U.S.-provided Liquid Propellant Disposition System at Krasnoyarsk, Russia.

Bottom Line: The U.S. has wasted \$106 million for a CTR facility that will never be used.

Project Description: Russia requested U.S. assistance to dispose of 30,000 metric tons of liquid fuel (heptyl) and 123,000 metric tons of oxidizer (amyl). Russia needed assistance with the disposal of liquid propellant to facilitate the disposal of intercontinental ballistic missiles and submarine-launched ballistic missiles. The liquid propellant disposition project involves removing the heptyl and amyl from missile sites, transporting the material to storage sites, and converting the material into other chemical products for commercial use.

What the U.S. Has Already Spent: As of July 2, 2002, DOD had obligated at least \$164.5 million and disbursed \$137.2 million to assist Russia in the disposal of heptyl and amyl, including approximately \$106 million to design, build, test, and ultimately close out the contract of the actual conversion facilities. (In part, DOD also provided Russia with 125 flatbed railcars, 670 intermodal tank containers, and seven cranes for the transportation and storage of the liquid propellants.)

- The system is only usable for heptyl conversion.
- There is no salvage contractor interested in re-sale in the West.
- OSD has decided to salvage the steam/hydrogen generators and turn over the facility's remains to the Russian Federation in May or June 2003.
- The U.S. can hope to recoup only about \$1.2 million from the plant, according to OSD.

Why the Project is Stalled: Russia informed DOD in February 2002 that it had used the heptyl and amyl for its commercial space launch program. According to OSD, Russia's Ministry of Defense turned the fuel over to Russia's space agencies.

U.S. Oversight: American contractors worked on the site, but there was no constant U.S. government oversight, and DOD never confirmed that the heptyl and amyl liquids would be available when the facilities were ready. Instead, the U.S. relied on a "good faith" agreement with Russia that the conversion facilities would be used for their intended purpose. Russia has used the same heptyl for its space launch vehicles since 1961. However, DOD says it assumed Russia would not use the heptyl for space launches because the fuel, which had sat in missiles for some time, was too unreliable (i.e. the cost of insurance would be prohibitive). Without telling DOD, Russia reprocessed the fuel in former heptyl-production plants, making it safer for use in space launches.

FACT SHEET: Solid Rocket Motor Disposition Facility (VOTKINSK, RUSSIA)



Solid Propellant Disposition Facility (artist's conception)

Bottom Line: The U.S. has wasted \$95 million on a CTR facility that will never be built.

Project Description: Construct a low-pressure, contained burn system to remove the solid propellant from Russian SS-24, SS-25 and SS-N-20 missile motors in an environmentally sound manner. The facility would only process missiles already de-mated from their warheads.

What the U.S. Has Already Spent: The U.S. has issued stop-work orders on the project but has already disbursed:

\$80.0 million – design and testing for a facility to burn rocket engines indoors

\$14.6 million – site improvements, including a road, gas line, warehouse, and tree clearing

\$94.6 million total (plus approximately \$1 million more to finish the design)

- There are no alternate uses or customers for the \$80 million design.
- There is no apparent alternate use for the improved site in Votkinsk.

Additional funds the U.S. Would Have Spent at Votkinsk if Completed: At least \$120 million to construct the facility, plus about \$20 thousand per missile (over 300 missiles total).

Why the Project is Stalled: According to DOD, the project was halted by local environmental politics in Votkinsk, a city of 100,000 less than 10 miles from the proposed disposition site. OSD has been advised by Moscow that the Votkinsk site will not likely be available because of an inability to obtain necessary land permits. OSD, which maintains that the facility would pose a negligible air quality threat to the surrounding area, initially chose a closed-burn approach because of the expected environmental benefits. (The land use issue did not surface earlier because DOD finalized the deal without first obtaining necessary land permits.)

Alternate Solution: DOD is exploring an option to refurbish old open-burn facilities, a project that would also require refurbishing rail lines and building storage facilities for transitory missiles. This approach would cost \$25.9 million in FY 2004, an additional \$84 million over the life of the program: \$10 – 15 million for facility/rail refurbishment; \$15 million for storage facility prep; and some \$54 million for enough storage facilities to house 18 SS-24s and 36 SS-25s awaiting dismantlement. DOD says it will not make a final decision on whether to fund the alternate plan until Russia gives it a more forward-looking ICBM drawdown schedule (it has received this timetable).

Future Land Permits: The old burners are immobile and there would be no guarantee that the land permits for outdoor burning would not get yanked at some point during the process.