CTR

Cooperative Threat Reduction Annual Report to Congress Fiscal Year 2004

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Executive Summary

With 12 years of experience and funding authorized and appropriated by Congress for the CTR Program now over $4.3 billion, the Department of Defense (DoD) continues to execute the CTR mission of providing assistance to prevent the proliferation of Weapons of Mass Destruction (WMD) and related materials, technologies, and expertise from former Soviet Union (FSU) states. This includes providing for the safe destruction of Soviet-era WMD, associated delivery systems, and related infrastructure. This FY 2004 CTR Annual Report to Congress provides details on the CTR Implementation Plan for FY 2004-2009 and results of the accounting activities conducted in FY 2002. With the exception of certain findings noted in this report, DoD has determined that CTR assistance to the FSU recipient states is being used efficiently and effectively for its intended purpose.

Statutory Requirements

The Annual Report to Congress on activities and assistance under CTR programs ("CTR Annual Report") for FY 2004 is submitted in accordance with Section 1308 of the Floyd D. Spence National Defense Authorization Act (NDAA) for FY 2001, as amended by Sections 1307 and 1309 of the NDAA for FY 2002. This CTR Annual Report was prepared with data as of January 2003 and reports on the FY 2004 and five-year CTR Program Implementation Plan and the previous year's (FY 2002) Accounting for CTR Program Assistance.

The CTR Program Implementation Plan for FY 2004-2009 is reported in Section II. Section 1308(c)(1)-(3) of the NDAA for FY 2001 states the requirement for this implementation plan.

Section III, Accounting for CTR Program Assistance to States of the former Soviet Union (FSU) Conducted During FY 2002, contains the information required by Section 1308(c)(4) of the NDAA for FY 2001 as amended by Section 1307 of the NDAA for FY 2002.

Appendix E reports the financial commitment for FY 2004 from the international community and from Russia for the chemical weapons destruction facility located at Shchuch'ye, Russia as required by Section 1309 of the NDAA for FY 2002.

The description of Russia's tactical nuclear weapons arsenal, as required by Section 1308 (c)(5) of the NDAA for FY 2001, will be submitted under separate cover.

National Strategy to Combat Weapons of Mass Destruction

In December 2002, the President issued the National Strategy to Combat Weapons of Mass Destruction. It states that WMD in the possession of hostile states and terrorists represent one of the greatest security challenges facing the United States, and we must pursue a comprehensive strategy to counter this threat in all of its dimensions. An effective strategy for countering WMD, including their use and further proliferation, is an integral component of the National Security Strategy of the U.S. The National Strategy further states that to succeed, we

must take full advantage of today's opportunities, including application of new technologies, increased emphasis on intelligence collection and analysis, strengthening of alliance relationships, and establishment of new partnerships with former adversaries. The Strategy is based on three pillars: counterproliferation to combat WMD use, strengthened nonproliferation to combat WMD proliferation, and consequence management to respond to WMD use.

Maintaining an extensive, efficient and effective set of nonproliferation and threat reduction options in the FSU states is a high priority of the United States. Nonproliferation assistance programs are designed to address the proliferation threat stemming from large quantities of Soviet-legacy WMD and missile-related expertise and materials remaining in the FSU states.

CTR Program and United States National Security

The mission of the CTR Program is to prevent the proliferation of WMD and related materials, technologies, and expertise from FSU states, preferably through the safe destruction of Soviet-era WMD, associated delivery systems, and related infrastructure. DoD has refocused the CTR Program to deal with the Global War on Terrorism, particularly in the Biological Weapons Proliferation Prevention and the WMD Proliferation Prevention program areas.

The CTR Program directly supports the U.S. National Security Strategy, the Strategy to Combat WMD, and contributes to national security by: reducing the WMD threat to the U.S. and its allies; denying rogue states and terrorists access to WMD and related materials, technologies, and expertise; exploiting the Soviet legacy of pathogens, data, and expertise to enhance preparedness against biological threats; contributing to stability and cooperation in the FSU; and expanding U.S. influence in the FSU states. The CTR Program dismantles strategic weapons delivery systems and infrastructure; enhances the security of WMD and weapons material; aids in the prevention of proliferation of weapons technology, materials, and expertise; and facilitates defense and military contacts to encourage military reductions and reform. At the borders of non-Russian FSU states, the CTR Program is improving means to prevent WMD proliferation.

In complying with the congressional requirement for annual CTR certification of recipient countries, the Administration decided not to certify Russia in FY 2002 and FY 2003 because of concerns over Russia's compliance with the Biological and Chemical Weapons Conventions, and its commitment to forego military modernization that exceeds legitimate defense requirements. Instead, the Administration requested and exercised authority to waive certification in order to balance U.S. national security objectives.

CTR Program Objectives

CTR Program objectives reflect DoD efforts to address high priority security and proliferation concerns in Russia and the other FSU states, as well as to assist these new nations transition to full partnership in the Global War on Terrorism and to combat the threat of WMD.

Objective 1: Dismantle FSU WMD and associated infrastructure.

Objective 2: Consolidate and secure FSU WMD and related technology and materials.

Objective 3: Increase transparency and encourage higher standards of conduct.

Objective 4: Support defense and military cooperation with the objective of preventing proliferation.

CTR Program – Proliferation Prevention

This CTR Annual Report also addresses the effort to refocus the CTR Program to deal with the Global War on Terrorism. Two program areas particularly applicable to this effort are the Biological Weapons Proliferation Prevention (BWPP) activities and the WMD Proliferation Prevention Initiative (WMD-PPI).

The BWPP program seeks to improve our level of biological security while exploiting the Soviet biological weapons (BW) legacy for prophylactic, protective, or other peaceful purposes. The BWPP program will assist in countering biological threats and preventing the proliferation of biological weapons technology, pathogens, and expertise at their source in Russia and other FSU sites. The strategic vision for the BWPP program is Eurasia becoming a full partner in the elimination of biological weapons and the prevention of bioterrorism. The approach is to build partnerships in BW elimination and proliferation prevention at multiple levels: regional cooperation, government-to-government, lab-to-lab, and scientist-to-scientist.

The WMD-PPI seeks to advance non-Russian FSU capabilities to stem the potential proliferation of WMD. The WMD-PPI vision is for non-Russian FSU states to possess a fully functioning, self-sustaining, integrated, multi-agency capability to prevent proliferation of WMD, related materials, and technologies to terrorists and proliferant states. The approach is to build capabilities in concert with other U. S. Government (USG) agencies that support regulatory enforcement and security regimes focusing on each state's circumstances.

Interagency Responsibilities

The Department of State (DOS) has the lead role in concluding CTR umbrella agreements with recipient states. Umbrella agreements are in place for Russia, Ukraine, Kazakhstan, Moldova, Georgia, and Uzbekistan. These agreements provide a comprehensive set of rights, exemptions, and protections for U.S. assistance personnel and CTR program activities. Each umbrella agreement designates DoD as the U.S. CTR Executive Agent. As such, and pursuant to statutory responsibilities, DoD negotiates the implementing agreements and other arrangements necessary to implement CTR program activity with the counterpart CTR executive agent of the recipient state. There may be more than one executive agent in a recipient country, each for a different program area. Appendix A provides a list of all applicable umbrella and implementing agreements that continue to be part of the legal framework for program execution.

Other Executive Branch departments are pursuing related programs, some of which were initially funded by DoD through the CTR Program. DOS directs and provides funding for the Science and Technology Centers, which are designed to employ former Soviet WMD scientists

and engineers on non-military research activities. The CTR Program is an International Science and Technology Center (ISTC) partner and manages some projects through the ISTC. DOS directs and provides funding for the Export Control and Related Border Security Assistance (EXBS) program, which seeks to improve export control capabilities of FSU states to prevent the proliferation of WMD and WMD components, technology, and delivery systems. Other U.S. agencies, including the Departments of Commerce and Energy, U.S. Customs Service, and U.S. Coast Guard, help implement this program with DOS-provided funds. CTR's WMD-PPI is integrated with these interagency programs and other DoD programs to include the International Counterproliferation Program, a coordinated effort with the Federal Bureau of Investigation and U.S. Customs designed to prevent, deter, and detect WMD and related materials.

DoD Responsibilities

DoD manages and conducts CTR program activity. The Office of the Under Secretary of Defense for Policy (OUSD(P)), through its CTR Policy Office, is responsible for coordinating policy guidance; defining CTR program objectives, scope, and direction; conducting long-range planning; providing a portion of program oversight; and undertaking activities with recipient states, including the negotiation and conclusion of CTR implementing agreements and arrangements. The CTR Policy Office, with other DoD offices, works closely with Congress, the National Security Council staff, and other Executive Branch departments and agencies on interagency and policy matters. The Defense Threat Reduction Agency (DTRA), reporting to the Under Secretary of Defense (Acquisition, Technology and Logistics) through the Assistant to the Secretary of Defense for Nuclear, and Chemical, and Biological Defense Programs, is the CTR implementing agency and provides program, contract, and funding management.

CTR Program Execution

With CTR assistance, over 6,032 strategic nuclear warheads have been deactivated and their related weapons platforms dismantled within the FSU states, more than half of the approximately 9,400 total FSU strategic nuclear warhead and delivery system capability expected to be deactivated and dismantled by 2012. In FY 2002, with CTR assistance, 44 submarine launched ballistic missile (SLBM) launchers were eliminated, 98 SLBMs were eliminated, and 3 nuclear powered ballistic missile submarines (SSBNs) were destroyed. Six SS-18 intercontinental ballistic missiles (ICBMs) were removed from silos, defueled, and shipped to storage facilities to await destruction. Twelve SS-18 ICBM silo launchers and 42 ICBMs (23 SS-17 and 19 SS-18) were destroyed.

CTR assistance also supported the movement of nuclear weapons from operational and storage locations to dismantlement facilities through the shipment of 70 trainloads agreed to contain nuclear warheads and components. The CTR Program attempts to verify the contents of these trains through a Russian subcontractor, as well as through U.S. national technical means (NTM). The contract to install comprehensive upgrades at Nuclear Weapons Storage Sites was also awarded. The project to construct the Fissile Material Storage Facility (FMSF) at Mayak, Russia for storage of eligible weapons-grade plutonium and uranium equivalent to 12,500 dismantled nuclear weapons is 92 percent complete.

Site preparation for Russia's Chemical Weapons Destruction Facility (CWDF) continued. Dismantlement, decontamination, and disposal operations were completed at the Nukus Chemical Research Institute, Uzbekistan.

In the area of BWPP in the FSU states, DoD is assessing known and accessible BW facilities and institutes. The BW Infrastructure Elimination project is assessing and developing dismantlement projects for FSU former BW production and excess research facilities. The Biosecurity and Biosafety project supports consolidation and the safe, secure storage and handling of dangerous biological pathogens used for legitimate research at pathogen repositories and in laboratories. The Cooperative Biological Research program has 13 active research projects that provide DoD access to portions of the former Soviet BW complex dealing with dangerous pathogens. Former BW scientists have been employed to develop improved treatment for the effects of pathogens on humans.

The Defense and Military Contacts program to prevent proliferation and promote demilitarization conducted 423 events with FSU states in FY 2002. Events included exercises, senior official visits, defense reform exchanges, and force professionalism exchanges.

In Ukraine, in FY 2002, dismantlement and elimination work continued on nuclear-capable bombers and associated air-launched missiles. The 163 rocket motors from disassembled SS-24 ICBMs are in storage, and are currently scheduled for elimination after the solid propellant disposition facility becomes operational in FY 2005.

Accounting for CTR Program Assistance

Under the respective umbrella agreements with Kazakhstan, Moldova, Georgia, and Uzbekistan, DoD can conduct a program of audits and examinations (A&Es) for a period of three years after the expiration of the applicable agreement. For the Ukraine projects, A&Es may be conducted through the expiration of the U.S.-Ukraine CTR Umbrella Agreement. A&Es of CTR projects in Russia can be performed for a period of three years after the expiration of the applicable implementing agreement.

As a result of on-site observations and accounting activity conducted during FY 2002 -- 14 A&Es, DTRA management site visits, and the contractual requirements of the U.S. logistics support contractors concerning equipment -- DoD can report that CTR assistance provided to the recipient states is fully accounted for and is being used efficiently and effectively for its intended purpose, except for the following concerns.

- DoD has significant concerns with the process the ISTC uses to administer projects. To independently verify these concerns, DoD funded a review of ISTC processes, which found roles within the ISTC were not clearly defined and no real structure existed to evaluate procedures and standardize processes. The ISTC is reorganizing its management and operations to address the concerns.

- DoD is continuing to address issues that contributed to extension of the date of completion of the FMSF in Mayak, Russia: the Russian Federation interagency has been unconvinced of the need to increase the number of U.S. technical representatives in the restricted area near

the FMSF; the construction subcontractor pace of work is lower than desired; and the construction subcontractor paid its vendors value added tax (VAT), which the Russian Federation has not repaid, thus creating a financial hardship. Construction is expected to be completed in June 2003, with the FMSF ready to start operation around the end of FY 2003.

- Early in FY 2002, DoD teams faced significant challenges related to the SS-24 Propellant Disposition Facility project in Pavlograd, Ukraine. The Ukraine contractor refused to sign contracts or approve design changes as well as other instances of non-cooperation. Ukraine designated the National Space Agency of Ukraine (NSAU) to correct the management-generated difficulties. Since the NSAU accepted this responsibility in February 2002, the plant management was restructured and cooperation is now very good. Designs are nearly complete, and DoD will make a final decision on construction in 2003.

- Recently, Russia has advised DoD that it is not possible to acquire land to construct the Solid Propellant Disposition Facility in Votkinsk. Russia has proposed to invest its own funds to convert two open burn facilities to semi-closed burn facilities and complete an existing closed burn facility. Russia has requested that DoD build storage facilities for SS-24 and SS-25 missiles or their motors. The combination of burn facilities and storage is intended to permit deactivation and removal of SS-24 and SS-25 missiles from their launchers on schedule, permitting launcher and missile elimination and destruction, and eventual closeout of the ICBM bases. Given the significant loss of CTR investment resulting from the land allocation issue, DoD is considering options for continued CTR support of this project.

- DoD was not able to fully accomplish the planned objectives for the A&E of cargo and guard railcars provided to Russia due to the Ministry of Defense's (MOD's) inability to provide the requested (10 cargo and 15 guard) railcars for inspection. MOD only provided eight cargo railcars and six guard railcars, but subsequently, MOD positioned the remaining railcars in Sergiev Posad for a technical team inspection scheduled in April 2003.

- In February 2002, the Russian Aviation and Space Agency (RASA) informed DoD that Russia had diverted liquid rocket propellant drained from destroyed missiles to their space program and thus significant quantities would not be available for conversion in the mobile oxidizer processing systems being provided under the $100 million Liquid Propellant Disposition Systems (LPDS) project. DoD immediately stopped work on the project and implemented a number of management initiatives to eliminate reliance on Russian good faith obligations. First, the Deputy Secretary of Defense approved a DoD Inspector General review of the heptyl situation and other aspects of the CTR Program. Second, a review of all programs was completed and a senior DoD team met in Moscow with the Russian CTR Executive Agent representatives. Each executive agent stated they are prepared to: 1) hold semi-annual reviews, and 2) sign amendments to appropriate implementing agreements to replace the current good faith obligations with legal commitments on the part of the Russian Federation. DoD is working with the executive agents to negotiate these amendments and the second semi-annual executive review was conducted in January 2003. Appropriate commitment amendments have been forwarded to each of the four Russia CTR Executive Agents – RASA, Russian Munitions Agency (RMA), MOD, and the Ministry of Atomic Energy (MinAtom) - for review and signature, and final decisions on restructuring CTR projects will depend on Russia's commitments to comply.

- MinAtom has denied access to perform A&Es of projects, stating a need for new arrangements governing A&Es. The U. S. is seeking to resolve this by concluding a new implementing arrangement with MinAtom in order to implement fully DoD's rights under existing agreements. Additionally, with the disestablishment of the Ministry of Economics as Russia's CTR Executive Agent for Strategic Offensive Arms Elimination (SOAE), A&Es on SOAE projects could not be scheduled until Russia authorized RASA to sign an amendment to the SOAE Implementing Agreement that extended the agreement and designated RASA as the executive agent. This amendment was concluded on August 30, 2002 and the first FY 2002 SOAE A&E was completed in August 2002.

Efficiency and Effectiveness of the CTR Program

The NDAA for FY 2002 directs DoD to include in the CTR Annual Report a description of the "means (including program management, audits, examination, and other means) used" by the United States to ensure that CTR assistance is fully accounted for including "that such assistance is being used for its intended purpose, and that such assistance is being used efficiently and effectively." Section III of this edition of this CTR Annual Report includes the first assessment under this new requirement.

Section III reflects DoD's efforts to begin incorporating more sophisticated measures of efficiency and effectiveness into the regular audit and examination process. We expect the CTR Annual Report for FY 2005 to reflect a fully mature set of efficiency and effectiveness metrics integrated into the audits and examinations program.

DoD's efforts to improve efficiency and effectiveness have been echoed by a more aggressive approach by OUSD(P) to CTR process issues in those areas where OUSD(P) can have an impact. Specifically, the CTR Policy office has pushed for more timely release of CTR appropriations for obligation. This complex process includes the Secretary of State's certification of eligibility for countries to receive CTR assistance, DoD notification of intent to obligate funds, and amending CTR implementing agreements to reflect the new assistance. Similarly, upon publication of this report, DoD will have delivered some ten reports and notifications to Congress in a nine-month period that have accumulated under CTR authorities. Resolving information flow problems with Congress is another aspect of efficiency and effectiveness that is being addressed more aggressively.

Due to the backlog in reporting noted above, this is the third CTR Annual Report submitted in less than one year. Congress has specified the report's contents in CTR authorities, and has required assessments of each such report by the General Accounting Office (GAO). In its required assessment of the two previous CTR Annual Reports, GAO has suggested that DoD include application of Government Performance and Results Act (GPRA) factors to assess program performance. The objectives of the GPRA and its requirements are strongly supported by DoD. Upon delivery of this report, the CTR program will be able to rationalize its process for the resource-intensive development of the CTR Annual Report and will assess the most efficient and effective means to reflect GPRA factors in the annual flow of information to Congress.

II. COOPERATIVE THREAT REDUCTION (CTR) PROGRAM IMPLEMENTATION PLAN FOR FY 2004

Statutory Requirements

The Floyd D. Spence National Defense Authorization Act for FY 2001, Section 1308, *Reports on Activities and Assistance Under the Cooperative Threat Reduction Program*, requires the Secretary of Defense to submit an annual report to Congress. This section, with appendices, reports the following:

> *"(1) An estimate of the total amount that will be required to be expended by the United States in order to achieve the objectives of the Cooperative Threat Reduction programs.* (See Figure II-6)
>
> *(2) A five-year plan setting forth the amount of funds and other resources proposed to be provided by the United States for Cooperative Threat Reduction programs over the term of the plan, including the purpose for which such funds and resources will be used, and to provide guidance for the preparation of annual budget submissions with respect to Cooperative Threat Reduction programs.* (See project descriptions and Figure II-I through II-6)
>
> *(3) A description of the Cooperative Threat Reduction activities carried out during the fiscal year ending in the year preceding the year of the report, including –*
>
> *(A) the amounts notified, obligated, and expended for such activities and the purposes for which such amounts were notified, obligated, and expended for such fiscal year and cumulatively for Cooperative Threat Reduction programs* (See project descriptions and Appendix B)*;*
>
> *(B) a description of the participation, if any, of each department and agency of the United States Government in such activities* (See project descriptions)*;*
>
> *(C) a description of such activities, including the forms of assistance provided* (See project descriptions)*;*
>
> *(D) a description of the United States private sector participation in the portion of such activities that were supported by the obligation and expenditure of funds for Cooperative Threat Reduction programs* (See project descriptions)*; and*
>
> *(E) such other information as the Secretary of Defense considers appropriate to inform Congress fully of the operation of Cooperative Threat Reduction programs and activities, including with respect to proposed demilitarization or conversion projects, information on the progress toward demilitarization of facilities and the conversion of the demilitarized facilities to civilian activities* (See project descriptions)*."*

Department of Defense (DoD) CTR Program Execution

Proposed future CTR program activity depends on congressional appropriations and authorizations, as well as the conclusion of implementing agreements or amendments to existing agreements.

In accordance with the CTR legislation, DoD seeks to provide CTR program support (goods and/or services) through U.S. contractors whenever feasible. In all cases, contracts are executed, managed, and reviewed in accordance with DoD and Federal Acquisition Regulations (FAR) requirements. Currently, U.S. contractors are developing key hardware items, providing consolidated logistics support, and functioning as integrating contractors with U.S. and FSU subcontractors.

In some cases (e.g., strategic submarine dismantlement), fixed price contracts are negotiated with local enterprises in recipient states to accomplish the work. Fixed price contracts are always used with local enterprises in recipient states with payment only upon completion of each negotiated deliverable.

CTR Funding

CTR assistance to the FSU states, under applicable CTR implementing agreements, totals $4,281.4 million in obligation authority through FY 2003. In FY 2002, $342.2 million was obligated to support CTR implementation. The requested CTR program budget for FY 2004 is $450.8 million. Since the CTR Program's inception, 62 program areas have received funding. Fifty of the 62 program areas are now complete or do not require additional funding, and are not included in the President's Budget submission. The $794.7 million previously authorized by Congress to implement these 50 program areas is included in the prior year funding column of Figure II-6.

CTR Implementation Plan Format

This section is organized according to the four CTR Program objectives, which are then arranged by relevant programs. Each project then describes the respective Five-Year Plan, Purpose, and Resources; and Description of CTR Activities Carried Out in FY 2002. The amount of funds and other resources proposed to be provided by the U.S. is also provided for each objective. At the end of this section, Figure II-6 provides the total CTR Program funding through the Future Years Defense Plan (FYDP) by program objective. If projects require funding beyond the FYDP (FY 2009), this will be identified in future CTR Annual Reports.

Objective 1: Dismantle former Soviet Union (FSU) Weapons of Mass Destruction (WMD) and associated infrastructure.

STRATEGIC OFFENSIVE ARMS ELIMINATION (SOAE) – RUSSIA

DoD is assisting Russia by contracting for, and overseeing the destruction of, strategic weapons delivery systems in accordance with the SOAE implementing agreement and all relevant START Treaty provisions and agreements, including the START Conversion or Elimination (C or E) Protocol. CTR assistance provides an incentive for Russia to draw down its Soviet legacy nuclear forces, thereby reducing opportunities for their proliferation or use. DoD is providing equipment and services to destroy or dismantle intercontinental ballistic missiles (ICBMs), ICBM silo launchers, road and rail mobile launchers, submarine launched ballistic missiles (SLBMs), SLBM launchers and associated strategic ballistic missile submarines (SSBNs), and WMD infrastructure. Also, the CTR Program supports the disposition of spent naval reactor fuel from dismantled SSBNs and the provision of emergency response support equipment. Legal commitments are replacing good faith obligations whenever CTR-provided infrastructure or equipment is used to carry out these elimination projects.

The following projects will require funding during FY 2003-2009:

- Emergency Response Support Equipment,
- Solid Propellant ICBM/SLBM and Mobile Launcher Elimination,
- Liquid Propellant ICBM and Silo Elimination,
- SLBM Launcher Elimination/SSBN Dismantlement,
- Spent Naval Fuel Disposition, and
- Liquid Propellant SLBM Elimination.

The Heavy Bomber Elimination Equipment project and the Low Level Radioactive Waste Volume Reduction project have been completed.

Emergency Response Support Equipment

Five-Year Plan, Purpose, and Resources: This project provides equipment to Russia for use in an emergency response train to respond should accidents occur involving the transportation of ballistic missiles. The equipment, including a rail-mounted crane, miscellaneous hydraulic tools, a hydro-abrasive cutter and transport system, concrete pulverizers, and an excavator, are centrally located in Krasnoyarsk and are available to support SLBM and ICBM transportation and dismantlement.

The estimated cost for this project increased from $8.9 million to $9.3 million. This increase supports two additional years of logistics support. The additional support accommodates the draw down of ICBMs and SLBMs through 2009.

Description of CTR Activities Carried Out in FY 2002: Raytheon Technical Services Company (RTSC) conducted corrective and preventive maintenance for project equipment.

Solid Propellant Disposition Facility (SPDF)

Five-Year Plan, Purpose, and Resources: The goal of this project was to provide a facility to remove the propellant from solid rocket motors (SRMs) from SS-24/25 and SS-N-20 missiles using a low pressure, contained burn system, and then cutting up the SRM cases, missile canisters, and the other associated items removed from the missiles and motors in a manner consistent with all relevant START Treaty provisions and agreements, including the START C or E Protocol. This project facilitates decommissioning of mobile ICBMs and helps reduce the risk of proliferation of missile components.

The proposed site for the SPDF was identified by Russian Federation and Udmurt Republic officials in March 1998. Russia was responsible for acquiring the land on which the facility was to be constructed. Due to environmental concerns, local and regional officials in 2001 began to oppose use of the proposed site despite their initial "warm welcome" for the project three years earlier. Russia has advised DoD that it is not possible to obtain land allocation to build the SPDF.

Russia has proposed to invest its own funds to convert two open burn facilities to semi-closed burn facilities with increased capacity and complete an existing closed burn facility, all with existing permits for open burning of propellant. Russia has requested DoD build storage facilities for SS-24 and SS-25 missiles or their motors. The combination of burn facilities and storage is intended to permit deactivation and removal of SS-24 and SS-25 missiles from their launchers on schedule. DoD requested and Russia provided a draw down schedule of their mobile ICBMs and a burn schedule for the missile motors. After appropriate amendments to the SOAE Implementing Agreement are signed, DoD will evaluate options for this project.

The estimated cost for this project decreased from $223.6 million to $107.4 million since the cost to construct the SPDF is not included in this report.

Description of CTR Activities Carried Out in FY 2002: A contract task order was awarded to Bechtel National Services, Inc. (BNI) to complete the pre-construction planning activities unfinished by the original contractor.

Solid Propellant ICBM/SLBM and Mobile Launcher Elimination

Five-Year Plan, Purpose, and Resources: This project will refurbish and operate Russian missile disassembly facilities; provide the equipment for, and operation of, mobile launcher elimination facilities; and perform destruction of treaty-limited components, canisters, gas generators, and other pyrotechnics. Infrastructure, including START fixed structures, at three SS-24 and up to nine SS-25 Strategic Rocket Force deployment bases will also be eliminated.

The CTR Program would assist in the infrastructure upgrade, provide minimal equipment, and pay a unit cost for the elimination of SS-24/25 solid propellant missile systems. Realizing the risk associated with the licensing, construction, and obtaining a permit to operate open burn facilities, DoD and RASA agreed that Russia would fund this effort and DoD would

decrease the original scope of assistance to minimal infrastructure and support equipment. Missile buffer storage facilities may be built to facilitate Russia's draw down of the SS-24 and SS-25 missile systems. Contingency plans would use these facilities for storage of SRMs, if upon missile disassembly the SRMs cannot be routinely burned. Russia has been notified that DoD will not contract to fund storage of such SS-24 and SS-25 missiles or their motor cases with propellant beyond January 2005. The combination of removing propellant and eliminating missile motors, together with storage, would permit immediate destruction of rail and road mobile launchers.

The current schedule plans for the destruction of 356 SS-25, 56 SS-24, and 77 SS-N-20 missiles through FY 2009. Additionally, 358 SS-25 road mobile launchers, and 39 SS-24 rail mobile launchers will be destroyed in accordance with all relevant START Treaty provisions and agreements, including the START C or E Protocol. This is an increase of 173 SS-25 missiles and 102 SS-25 road mobile launchers from the previous CTR Annual Report resulting from the extension of this program through FY 2009.

Due to the increase in the number of missiles and launchers to be eliminated and destroyed, the estimated cost of this program has increased from $199.0 million to $474.8 million. A small portion of this increase results from possible infrastructure requirements for the open burn stands, removal of propellant from missile motors, and elimination and destruction of additional road mobile missile deployment base infrastructure. This figure will likely be adjusted again in the next CTR Annual Report to reflect final decisions, expected in 2003.

Description of CTR Activities Carried Out in FY 2002: A contract to upgrade SS-N-20 missile dismantlement and open burn facilities was awarded to Makeyev, a Russian firm. A contract for the disassembly and open burn/elimination of 40 SS-N-20 missiles was awarded to Parsons Delaware, Inc. Contracts were awarded to Washington Group International, Inc. to construct SS-24 storage warehouses at Surovatikha, destroy SS-24 ICBMs and rail mobile launchers, design SS-25 storage warehouses at Perm, and design infrastructure improvements for the solid rocket motor burn stand at Kemerovo. Preparation of the rail mobile launcher and launch associated railcar elimination and destruction facility at Bryansk, and the feasibility study to support SS-24 elimination and destruction at Perm were completed by Askond, a Russian firm. A contract for repair and certification of railway equipment required for elimination and destruction of SS-24 and SS-25 ICBMs was awarded to Raytheon Technical Services Company.

Liquid Propellant Disposition Systems (LPDS)

Five-Year Plan, Purpose, and Resources: The goal of this project was to facilitate liquid propellant ICBM/SLBM destruction by addressing shortfalls in Russia's capability to transport and safely dispose of the fuel and oxidizer associated with missiles eliminated with CTR assistance. Upon learning in February 2002 that Russia had diverted the fuel and oxidizer to its space launch program, DoD issued a stop work order for the liquid propellant disposition contract, and terminated in the design phase the contract to design and build two mobile oxidizer processing systems. United States agreement to build this facility helped remove a key impediment to decommissioning and destruction of liquid fueled ICBMs. Yet, the significant loss of CTR investment and the unwillingness of Russia to take responsibility for it have severely undermined DoD's confidence in Russia's management of its CTR responsibilities.

Two unsymmetrical dimethyl hydrazine (UDMH) disposition systems at Krasnoyarsk were placed in a standby mode until DoD determined the best course of action consistent with U.S. interests. The decision has been made to dismantle and salvage a small portion of the two systems.

The estimated cost for this project has decreased from $163.7 million to $106.4 million, although this investment cannot be used for its intended purposes. This decrease is due to the termination of the mobile oxidizer processing system contract, curtailment of the fuel disposition system contract, and transferring the intermodal containers, flatbed railcars, and cranes to the Liquid Propellant ICBM and Silo Elimination project. If Russia had notified DoD at the time they decided to divert fuel and oxidizer to their space launch program, an earlier decision could have been made on using the funds to assist in other WMD elimination projects.

Description of CTR Activities Carried Out in FY 2002: System tests continued on the two UDMH disposition units by the integrating contractor, Thiokol Propulsion, Inc., until the stop work order was issued in February 2002. Design work continued for the mobile oxidizer processing system by BNI until the contract was terminated in February 2002.

Liquid Propellant ICBM and Silo Elimination

Five-Year Plan, Purpose, and Resources: This project will eliminate SS-18 silos and destroy SS-17/18/19 ICBMs in accordance with the START C or E Protocol. This report reflects increases in the elimination of both silos and missiles resulting from the anticipated draw down through FY 2009. The project will deactivate and dismantle 130 SS-18 ICBM silos, 20 associated launch control center (LCC) silos, and 3 training silos, including technical site restoration. This is an increase of 40 launch silos, 5 LCC silos, and 1 training silo from the FY 2003 CTR Annual Report resulting from the extension of this program through FY 2009. It is anticipated that eliminations will go beyond FY 2009.

Upgrades to the missile elimination and destruction facility at Surovatikha support neutralization, dismantlement, and destruction of liquid propellant ICBMs. Current projections anticipate the destruction of 97 non-deployed SS-17 ICBMs, 314 deployed/non-deployed SS-18 ICBMs, and 178 deployed/non-deployed SS-19 ICBMs and launch canisters. This is an increase of 10 SS-17, 108 SS-18, and 105 SS-19 ICBMs from the previous CTR Annual Report resulting from the extension of this program through FY 2009.

DoD provided equipment to store and transport liquid missile propellant at Moshkovo, Ilyino, Mulyanka, Tambov, Turinskaya, Vanino, and Naro-Fominsk dismantlement sites. The equipment includes 125 flatbed railcars, 670 intermodal containers, and 7 cranes that require periodic recertification and maintenance. DoD will limit certification and maintenance of equipment to a level commensurate with anticipated ICBM elimination and destruction.

The estimated cost for this project has increased from $319.3 million to $337.8 million. This increase represents the net gain resulting from the transfer to this project of the costs to maintain and certify the intermodal containers, flatbed railcars, and cranes, while eliminating the Liquid Propellant Disposition Plant operation.

Description of CTR Activities Carried Out in FY 2002: Six SS-18 ICBMs were removed from silos, defueled, and shipped to a storage facility. A total of 330 metric tons of propellant and 853 metric tons of oxidizer were shipped to a storage facility. Twenty-three SS-17 and 19 SS-18 ICBMs, 12 SS-18 ICBM silos, 3 LCC silos, and 1 training silo were eliminated.

SLBM Launcher Elimination/SSBN Dismantlement

Five-Year Plan, Purpose, and Resources: This project will assist Russia in eliminating approximately 644 SLBM launchers in accordance with the START C or E Protocol at 5 START-designated SLBM launcher elimination facilities and will provide assistance to dismantle 43 associated SSBNs. Two *Yankee* class, 36 *Delta* class, and 5 *Typhoon* class strategic SSBNs will be dismantled. This is an increase of two SSBNs from the FY 2003 CTR Annual Report resulting from the extension of this program through FY 2009. Equipment and infrastructure improvements were made at all SLBM launcher elimination facilities except SevMash.

Russia will eliminate 80 SLBM launchers and 6 associated SSBNs using the DoD-provided equipment and infrastructure upgrades. In addition, DoD, through direct contract, will eliminate 564 launchers and dismantle 37 associated SSBNs. DoD support for elimination, dismantlement, and logistics equipment will continue beyond FY 2009.

The estimated cost for this project increased from $385.4 million to $434.8 million. This increase is for transportation of spent naval fuel (SNF) from 15 SSBNs to Mayak for dry storage and for elimination of launchers and dismantlement of 2 additional associated SSBNs.

Description of CTR Activities Carried Out in FY 2002: Forty-four SLBM launchers were eliminated and three SSBNs were dismantled. One additional SSBN was placed on contract for dismantlement at the Zvezda Far East Shipyard.

Spent Naval Fuel (SNF) Disposition

Five-Year Plan, Purpose, and Resources: This project supports SLBM launcher elimination and associated SSBN dismantlement through dry storage of SNF removed when defueling SSBNs. The plan is to store SNF in storage/transportation containers (casks) from 16 of the 37 SSBNs that will be dismantled through direct contract. Russia has taken responsibility for the storage and disposition of previously offloaded SNF, and has thus reduced DoD assistance required for SNF storage by 16 SSBNs. The revised plan is to procure 192 casks.

Procurement of six SNF transport railcars, storage pads at three dismantlement facilities, and a storage facility at the Mayak Production Association will complete the dry storage system. This project will be completed in FY 2009.

The estimated cost for this project decreased from $67.7 million to $49.9 million. This decrease reflects the 132 fewer casks required to support SSBN dismantlement.

Description of CTR Activities Carried Out in FY 2002: A contract was awarded to SevMash Production Association for the fabrication of 25 SNF casks. A contract was awarded to Atomspetstrans for the construction of six special railcars capable of transporting the SNF

casks. A contract was awarded to Raytheon Technical Services Company to manage the design work to reconstruct a dry storage facility at Mayak.

Liquid Propellant SLBM Elimination

Five-Year Plan, Purpose, and Resources: This project will assist in destroying approximately 642 liquid propellant SS-N-6, SS-N-8, SS-N-18, and SS-N-23 SLBMs from the Russian Northern and Pacific Fleets. This is an increase of 48 SLBMs from the FY 2003 CTR Annual Report due to the projected elimination of launchers and dismantlement of 2 additional *Delta IV* class SSBNs. The destruction process includes shipping, defueling, neutralization, and cutting into pieces all proliferable components of SLBMs. This project will continue beyond FY 2009.

The estimated cost for this project has increased from $38.8 million to $50.7 million. This increase supports dismantlement of additional SLBMs, including the logistic and management support requirements for seven additional years from the previous plan.

Description of CTR Activities Carried Out in FY 2002: Ninety-eight SLBMs were eliminated and dismantled at Krasnoyarsk and Sergiev Posad, bringing the total number of SLBMs eliminated and dismantled under the program to 336. Refurbishment of elimination and dismantlement facilities for SLBMs at the Revda Base, Sergiev Posad Test Institute (NIIKhSM), and the Krasnoyarsk KrasMash facility was completed.

CHEMICAL WEAPONS DESTRUCTION (CWD) – RUSSIA

In accordance with the CWD Implementing Agreement, DoD is assisting Russia in the safe, secure, and environmentally sound destruction of its chemical weapons stockpile. The Chemical Weapons Destruction Facility and the Chemical Weapons Production Facility Demilitarization projects continue to support this effort. The Chemical Weapons Analytical Monitoring project was completed in FY 2001.

Chemical Weapons Destruction Facility (CWDF)

Five-Year Plan, Purpose, and Resources: The U.S. has agreed to create a CWDF for organophosphorus (nerve) agent-filled munitions. The project includes process development, process/facility design, construction, equipment acquisition and installation, systems integration, training, and facility start-up.

The FY 2002 NDAA replaced the prior, permanent prohibition on using CTR program funds to construct the CWDF with authority to spend funds subject to Secretary of Defense certification that Russia had met six conditions. Congress granted the President authority to waive the six conditions in the FY 2003 Defense Appropriations Act. On January 10, 2003 the President certified that waiving the conditions described in section 1305 of the FY 2000 NDAA was important to the national security interests of the United States. (Note: On March 18, 2003, DoD concluded with RMA an amendment to the CWD Implementing Agreement that establishes a legally binding commitment for Russia to destroy at Shchuch'ye all of its nerve agent weapons.)

The CWDF will be located near the town of Shchuch'ye. It is being designed to destroy Russia's nerve agent-filled, man-portable, tube and rocket artillery of caliber up to 220mm, and missile warheads. The total nerve agent currently stored at the CW storage sites is about 5,449 metric tons in 1.9 million warheads at Shchuch'ye and 5,515 metric tons in 2.1 million warheads at Kizner. The CTR Program will construct one of two identical buildings in which the nerve agent will be removed from warheads and neutralized, and the drained munitions thermally decontaminated. CTR assistance will also build additional facilities to treat the neutralized materials, manufacture the chemical used to neutralize Vx nerve agent, and safely store process wastes.

Russia and the international community will build the second identical building for processing warheads and destroying agent, and supporting social infrastructure. The entire complex will be able to destroy 1,700 metric tons of nerve agent per year. With this capacity and ideal processing, it will take 6.5 years to destroy Russia's ground-delivered nerve agent-filled weapons. The current construction schedule plans for initial operations (demonstration with live agent) in October 2007 and transfer of the facilities to Russia in March 2008.

DoD in FY 2003 will begin construction of the boiler house, the electrical substation, the foundations for several additional buildings, and will commence purchase of long-lead equipment. In April 2004, construction of the main destruction building (MDB) is planned to begin after successful agent destruction processing and neutralizing mixture scale-up testing, favorable chronic toxicology testing, completion of CWDF working construction documentation, and continued Russian progress on industrial and operations support infrastructure construction. All Russian construction responsibilities required for integration into the CWDF are scheduled and on track for completion before MDB construction. With $25.0 million per year and the projected international financial contributions, CTR program management assesses that Russia has sufficient funding to ensure utilities are on time for integration into the CWDF.

The estimated cost of this project decreased from $888.0 million to $887.3 million. This decrease is due to revised inflation rates.

Description of CTR Activities Carried Out in FY 2002: Engineering management services continued to be provided by Parsons Delaware, Inc. with major subcontractors: Science Applications International Corporation (SAIC), Washington Group International, Inc., EG&G, El Dorado, and Illinois Institute of Technology Research Institute. The chemical neutralization reagent and scale-up testing was completed. Reaction mass and waste water bituminization scale-up was started. The Planovy Test Facility, site of the 1:50 neutralization testing, was completed and state acceptance initiated. Construction documentation was completed for demilitarization machines and the metal parts furnace. Support equipment for demilitarization machine testing was installed. Land clearing and site preparation were completed.

Chemical Weapons Production Facility (CWPF) Demilitarization

Five-Year Plan, Purpose, and Resources: This project will demilitarize former nerve agent weapons production facilities at OAO Khimprom, Volgograd, and at Plant #4, OAO Khimprom, Novocheboksarsk. The CTR demilitarization effort will decontaminate, dismantle, and destroy specialized equipment and special features related to the production, transfer, and

storage of chemical agent/weapons and their precursors as outlined in the CWC. Demilitarization operations on buildings declared under the CWC are conducted after Russian conversion or destruction plans are approved by the Organization for the Prohibition of Chemical Weapons (OPCW).

Phase I (concept plan, documentation, and demilitarization of pilot project buildings) and demilitarization of Phase II facilities at Volgograd are complete. Demilitarization of Phase III facilities at Volgograd will begin in FY 2003 and will be completed in FY 2005.

Phase I at Novocheboksarsk consisted of the removal and destruction of specialized munitions equipment in a munitions preparation building. Phase II will complete preparations for demilitarization of the Vx production and munitions filling complex and will be completed in FY 2004. Phase III (demilitarization/dismantlement operations) will be initiated in FY 2004. Phase IV (demolition and waste disposal) will be initiated in FY 2005 with project completion scheduled for April 2007.

Phase III Volgograd and Phase II Novocheboksarsk have slipped a year due to Russian CTR certification issues.

The estimated cost for this project remains $50.7 million.

Description of CTR Activities Carried Out in FY 2002: A contract to design, fabricate, and install thermal treatment systems for demilitarization of Building 350 and 352 at Novocheboksarsk was awarded to Parsons Delaware, Inc. The Tennessee Valley Authority provided project management and technical support.

STRATEGIC NUCLEAR ARMS ELIMINATION (SNAE) – UKRAINE

Prior year funding facilitated Ukraine becoming a non-nuclear weapons state in 1996. Remaining assistance includes elimination of SS-24 missile motors, Tu-22M Backfire nuclear-capable bombers, Kh-22 nuclear air-to-surface missiles, and non-fueled ICBMs. In accordance with the SNAE Implementing Agreement, DoD currently plans to continue the following projects until complete:

- SS-19 Neutralization and Dismantlement Facility;
- SS-24 Missile Disassembly, Storage, and Elimination;
- SS-24 Propellant Disposition Facility; and
- Bomber and Air-Launched Cruise Missile (ALCM) Elimination.

Completed SNAE projects include Emergency Response Support Equipment, SS-19 Housing, SS-19 Silo Elimination, SS-19 Liquid Propellant Disposition, and Non-Deployed ICBM Elimination Equipment. The SS-24 Silo Elimination project is complete except for some residual activity.

SS-19 Neutralization and Dismantlement Facility

Five-Year Plan, Purpose, and Resources: This project eliminates non-fueled strategic missiles and components. The number of SS-19s to be eliminated is currently under review, as Ukraine has indicated that some of the 32 missiles slated to be eliminated, as stated in the FY 2003 CTR Annual Report, will not be eliminated. Three SS-17 ICBMs will be destroyed, as well as some components of one SS-18 ICBM (non-fueled) and the pyrotechnics from disassembled ICBMs. This project will be completed in FY 2003.

This project previously eliminated all components of 111 SS-19 silo based missiles and the guidance/warhead dispensing units from 22 additional SS-19 missiles.

The estimated cost of this project remains $65.0 million.

Description of CTR Activities Carried Out in FY 2002: A contract modification to eliminate non-fueled strategic missiles and components was awarded to Washington Group International, Inc.

SS-24 Missile Disassembly, Storage, and Elimination

Five-Year Plan, Purpose, and Resources: The 163 first, second, and third stage missile motors, also known as loaded missile cases (LMCs), from disassembled SS-24 ICBMs require storage. Storage sites were constructed or renovated, and they will be operated and maintained.

This project provided the services and facilities to store SS-24 missiles until disassembled and to eliminate the non-motor START-accountable missile components. All missiles have been disassembled, and the non-motor START-accountable SS-24 components were eliminated in accordance with the START C or E Protocol.

The estimated cost for this project increased from $102.4 million to $107.7 million. The storage of missile motors will not be transferred to the Propellant Disposition Facility (PDF) project as indicated in the FY 2003 CTR Annual Report.

Description of CTR Activities Carried Out in FY 2002: The contractor, Washington Group International, Inc., disassembled and stored 2 missiles, stored 163 loaded motor cases (LMC), and eliminated 33 sets of START-accountable components (less the LMCs).

SS-24 Propellant Disposition Facility (PDF)

Five-Year Plan, Purpose, and Resources: This project currently plans to eliminate SS-24 ICBMs by providing facilities and services to remove and dispose of solid propellant from 163 SS-24 first, second, and third stage missile motors and to eliminate the empty motor cases in accordance with the START C or E Protocol. High-pressure water washout (hydro-mining) will be used to remove propellant from the missile motors. The project will be implemented in three phases.

Phase I will construct a pilot plant to prove the feasibility of using hydro-mining techniques to remove the propellant from each stage of the SS-24. The pilot plant will establish

the safety margin and processing parameters for each of the four types of propellant used in SS-24 missiles. Phase I will provide a preliminary facility design, permits, and licenses and will conduct testing and licensing of mining blasting agents that will be produced from the disposed propellant. Phase II is currently planned for design, construction, and renovation of facilities; procurement and installation of equipment; and testing, evaluation, and certification of the full-scale facility. Phase III is currently contemplated for operation and maintenance of the PDF until all missile motors are processed. The current projected schedule, if a decision is made to execute construction, is to complete Phase I by June 2003, Phase II by March 2005, and Phase III by September 2007.

The estimated cost for this project remains $128.3 million. Of this amount, $15.9 million is not financed and will be addressed by DoD after assurances that all outstanding issues with the Pavlograd Chemical Plant are resolved.

Description of CTR Activities Carried Out in FY 2002: A contract was awarded to the Washington Group International, Inc./Thiokol Propulsion, Inc. team for the SS-24 PDF. Assembly of a subscale pilot plant continued and included: a hydraulic cutting wand to extract propellant from the LMCs, a shredder to reduce the size of the extracted propellant, a pumping system that will pump the extracted propellant mixed with a slurry solution of desensitizing fluid, and a vibration screen to sift the propellant chunks from the smaller sized propellant pieces. Hardware procurement was initiated and shipped to Pavlograd.

Bomber and Air-Launched Cruise Missile (ALCM) Elimination

Five-Year Plan, Purpose, and Resources: This project is currently planned to eliminate up to 40 Tu-22M Backfire nuclear-capable bombers and 230 Kh-22 nuclear air-to-surface missiles. Equipment will be removed and then the bombers and missiles will be defueled, neutralized, and eliminated. This project will also eliminate the missile fuel. CTR logistic support will be provided until project completion in FY 2004.

Technical requirements are being developed to assist Ukraine with the elimination of Kh-22 air-to-surface missile (ASM) fuel and oxidizer (samin and melange), as well as to eliminate Tu-142 Bear aircraft. This activity is an addition to the plan in the FY 2003 CTR Annual Report. This project previously eliminated 38 heavy bombers and 483 Kh-55 ASMs.

The estimated cost of this project increased from $31.9 million to $32.4 million. This increase is associated with elimination of Kh-22 ASM fuel and oxidizer and Tu-142 Bear aircraft.

Description of CTR Activities Carried Out in FY 2002: Raytheon Technical Services Company (RTSC) completed the elimination of detselene Kh-55 ASM fuel, Tu-95 and Tu-160 bomber engines, and ASM rotary launchers and external pylon launchers. RTSC completed the elimination of six Tu-22M bombers at Priluki and one Tu-22M bomber at Belaya Tserkov.

WEAPONS OF MASS DESTRUCTION INFRASTRUCTURE ELIMINATION (WMDIE) - UKRAINE

In accordance with the WMDIE Implementing Agreement, the following projects are currently planned to destroy infrastructure associated with WMD and assist in preventing proliferation of associated materials, equipment, and technologies:

- Liquid Missile Propellant and Storage Facilities Elimination,
- National Nuclear Storage Site Elimination, and
- Airbase Infrastructure Elimination.

The Unified Fill Facility (UFF)/Nuclear Weapons Storage Area (NWSA) Elimination project has been completed. The SS-18/SS-24 Manufacturing Infrastructure Elimination project was not initiated and is not included in this report.

Liquid Missile Propellant and Storage Facilities Elimination

Five-Year Plan, Purpose, and Resources: This project is currently planned to provide the services and equipment required to eliminate residual amounts of liquid propellant and to dismantle equipment and infrastructure at former ICBM and ASM liquid propellant storage and handling facilities at eight locations. All work will be completed by FY 2006.

The estimated cost of this project decreased from $14.8 million to $11.4 million. This reduction is based on actual contract costs.

Description of CTR Activities Carried Out in FY 2002: The two Anderson incinerators located at Pervomaysk that will be used to eliminate residual amounts of liquid propellant were tested and inspected by BNI.

National Nuclear Storage Site Elimination

Five-Year Plan, Purpose, and Resources: This project is currently planned to demilitarize Feodosia NWSA and Raduga National Stockpile Site (NSS). Demilitarization activities at Raduga NSS will disable 2 hardened bunkers through the removal of blast doors and ventilation shafts, and the elimination of more than 30 support structures. Feodosia NWSA is comprised of three nuclear warhead storage bunkers that are built into surrounding mountains. Demilitarization activities will remove blast doors, ventilation shafts, air-moving equipment, and power generators. Work at Raduga is projected to be complete in FY 2003. Work at Feodosia will be contracted for in FY 2003 and completed in FY 2004.

The estimated cost for this project increased from $3.0 million to $3.7 million. This increase is based on a revised cost estimate for Feodosia.

Description of CTR Activities Carried Out in FY 2002: A contract to eliminate the Raduga NSS was awarded to BNI. DoD developed the plan to eliminate the Feodosia NWSA.

Airbase Infrastructure Elimination

Five-Year Plan, Purpose, and Resources: This project is currently planned to eliminate infrastructure that sustained strategic bomber operations at Priluki, Uzin, and Belaya Tserkov airbases. Tasks include performance of environmental surveys, removal of parking position and taxiway reinforced concrete slabs, flattening of aircraft protective berms, elimination of weapons storage areas and petroleum, oil, and lubricants infrastructure, demolition of operations and support buildings and structures, and technical restoration of sites. This project will continue through FY 2005.

The estimated cost for this project decreased from $8.9 million to $7.7 million. This decrease is due to rescoping the project.

Description of CTR Activities Carried Out in FY 2002: Raytheon Technical Services Company (RTSC) was selected as the contractor to perform the above tasks. DoD and RTSC conducted an on-site survey of the facilities to be eliminated.

WEAPONS OF MASS DESTRUCTION INFRASTRUCTURE ELIMINATION (WMDIE) – KAZAKHSTAN

In accordance with the WMDIE Implementing Agreement, projects were developed to destroy WMD associated infrastructure. The Airbase Infrastructure Elimination project was not initiated and is not included in this report. Projects planned to be implemented are:

- Nuclear Weapons Storage Site Elimination,
- Liquid Missile Propellant and Storage Facilities Elimination, and
- Pavlodar Chemical Weapons Production Facility Demilitarization.

Nuclear Weapons Storage Site Elimination

Five-Year Plan, Purpose, and Resources: This new project plans to demilitarize a former nuclear weapons storage site. Demilitarization activities will be analogous to the demilitarization effort at Raduga NSS and Feodosia NWSA in Ukraine. Activities will include disabling hardened bunkers through the removal of blast doors and ventilation shafts, and the elimination of support structures. Work is projected to be complete in FY 2006.

The estimated cost of this project is $1.5 million.

Description of CTR Activities Carried Out in FY 2002: None. Awaiting completion of technical discussions with Kazakhstan.

Liquid Missile Propellant and Storage Facilities Elimination

Five-Year Plan, Purpose, and Resources: This project is currently planned to eliminate liquid propellant for ICBMs, and dismantle equipment and infrastructure at liquid propellant storage and handling facilities. Estimated project completion is in FY 2005.

The estimated cost of this project has declined from $8.5 million to $4.9 million. This reduction was made to address higher priority requirements.

Description of CTR Activities Carried Out in FY 2002: None. Awaiting completion of technical discussions with Kazakhstan.

Pavlodar Chemical Weapons (CW) Production Facility Demilitarization

Five-Year Plan, Purpose, and Resources: This project will demilitarize a FSU chemical agent precursor production plant and chemical weapons production facility. The estimated completion date for this project is FY 2007. There are four tasks to implement this project:

- Develop a site survey and obtain detailed information on the specialized equipment/features that require elimination in accordance with the Chemical Weapons Convention (CWC);

- Prepare a facility demilitarization implementation plan;

- Hire a contractor to provide required demilitarization services; and

- Demilitarize the CW-related equipment and toxic chemical handling building features and structures, in accordance with the OPCW-approved Detailed Destruction Plan.

The estimated cost of this project increased from $3.5 million to $10.4 million. This increase is based on a revised cost estimate.

Description of CTR Activities Carried Out in FY 2002: None. Awaiting formal declaration from Kazakhstan to OPCW.

BIOLOGICAL WEAPONS PROLIFERATION PREVENTION (BWPP) - FSU

In 1996, the U.S. first discovered the Stepnogorsk war readiness anthrax production plant in Kazakhstan. This biological weapons program left an enduring legacy of facilities, technology, very dangerous pathogens (bacterial and viral), and expertise across the FSU states. Subsequently, the U.S. located several more large facilities containing the infrastructure needed to perform research on, or capable of producing and weaponizing, very dangerous pathogens. Typically these facilities were located near scientific institutes capable of performing the research or overseeing production.

To efficiently and effectively plan for BWPP, DoD is assessing all known facilities and institutes. In addition, there is an ongoing effort to identify BW facilities and institutes not yet known to the U.S. These assessments will provide detailed vulnerability and threat analyses for each institute and facility. The analyses will be used to develop implementation plans for reducing the BW proliferation threats and for prioritizing biological containment facility dismantlement. The dangers posed by some of these facilities requires CTR assistance to dismantle some production and research buildings concurrently with development of comprehensive implementation plans.

Biological Weapons Infrastructure Elimination

Five-Year Plan, Purpose, and Resources: In 1999, the State Research Center of Virology and Biotechnology (Vector) requested assistance in dismantling its former BW research and production facilities as part of a Defense Conversion project. Vector also identified other portions of the research center for future dismantlement. The State Research Center for Applied Microbiology (SRCAM) at Obolensk and the All-Russian Research Institute of Phytopathology located in Golitsino have both expressed an interest in eliminating excess infrastructure and equipment that formerly supported the Soviet BW program.

The Kazakhstan Institute for Research on Plague Control (KIRPC) has stated an interest in consolidating regional field stations, as well as eliminating excess infrastructure. Uzbekistan requested assistance to destroy facilities for testing agents on Vozrozdheniya (Voz) Island.

The estimated cost of this project increased from $56.1 million to $69.9 million. This is a result of identifying additional bio-containment facilities requiring dismantlement.

Description of CTR Activities Carried Out in FY 2002: DoD continued contracting with BNI, which serves as the BWPP integrating contractor to develop and integrate dismantlement projects at FSU BW institutes. The combined Biological Weapons Production Facility Dismantlement/Defense Conversion project at Vector continued. Development started for Biological Weapons Infrastructure Elimination projects in Building 1 at Obolensk, and at Pokrov and Golitsino. A DoD team carried out a project on Vozrozdheniya (Voz) Island to destroy residual anthrax in pits previously used for disposal.

Figure II-1 An estimate of the total amount in millions that will be required by the United States in order to achieve Objective One of the CTR Program.

Implementing Agreement / Project	Prior Year	FY 2003	FY 2004	FY 2005 - FY 2009	Total*
Strategic Offensive Arms Elimination (Russia)					
Emergency Response Support Equipment	$7.9	$0.2	$0.2	$1.0	$9.3
Solid Propellant Disposition Facility	$107.4				$107.4
Solid Propellant ICBM/SLBM and Mobile Launcher Elimination	$184.2	$33.6	$25.9	$231.1	$474.8
Liquid Propellant Disposition Systems	$106.4				$106.4
Liquid Propellant ICBM and Silo Elimination	$217.8	$15.2	$10.3	$94.5	$337.8
SLBM Launcher Elimination/SSBN Dismantlement	$276.8	$11.4	$18.7	$127.9	$434.8
Spent Naval Fuel Disposition	$36.9	$9.3		$3.7	$49.9
Liquid Propellant SLBM Elimination	$36.4	$0.4	$2.5	$11.4	$50.7
Completed Projects	$49.7				$49.7
Chemical Weapons Destruction (Russia)					
Chemical Weapons Destruction Facility	$273.8	$125.9	$190.3	$297.3	$887.3
CW Production Facility Demilitarization	$30.5	$7.0	$10.0	$3.2	$50.7
Completed Projects	$30.3				$30.3
Strategic Nuclear Arms Elimination (Ukraine)					
SS-19 Neutralization and Dismantlement Facility	$65.0				$65.0
SS-24 Missile Disassembly, Storage, and Elimination	$107.7				$107.7
SS-24 Propellant Disposition Facility	$73.8	$6.4	$3.9	$28.3	$112.4
Bomber & ALCM Elimination	$32.4				$32.4
Completed Projects	$271.1				$271.1
WMD Infrastructure Elimination (Ukraine)					
Liquid Missile Propellant and Storage Facility Elimination	$7.4	$4.0			$11.4
National Nuclear Storage Site Elimination	$3.7				$3.7
Airbase Infrastructure Elimination	$3.0	$4.7			$7.7
Completed Projects	$15.3				$15.3
WMD Infrastructure Elimination (Kazakhstan)					
Nuclear Weapons Storage Site Elimination		$1.5			$1.5
Liquid Missile Propellant and Storage facility Elimination	$2.5	$2.4			$4.9
Pavlodar CW Production Facility Demilitarization	$0.5	$3.0		$6.9	$10.4
Completed Projects	$27.5				$27.5
BW Proliferation (FSU)					
BW Infrastructure Elimination	$7.2	$9.7	$9.0	$44.0	$69.9
Budget	$1,975.2	$234.7	$270.8	$849.3	$3,330.0
* Estimated Program FYDP Total					

Objective 2: Consolidate and secure FSU WMD and related technology and materials.

NUCLEAR WEAPONS STORAGE SECURITY (NWSS) - RUSSIA

In accordance with the NWSS Implementing Agreement, this program supports U.S. non-proliferation objectives by enhancing the security, safety, and control of nuclear weapons during storage. The following projects further these objectives:

- Automated Inventory Control & Management System,
- Guard Force Equipment and Training,
- Nuclear Weapons Storage Site Support, and
- Site Security Enhancements.

The Security Assessment, Training and Logistics project was completed in FY 2002.

Automated Inventory Control & Management System (AICMS)

Five-Year Plan, Purpose, and Resources: This project is intended to enhance MOD's capability to account for and track strategic and tactical nuclear weapons scheduled for dismantlement. The operational configuration will provide hardware, off-the-shelf software, and facilities for a fully integrated system at 18 sites (2 central command posts, 2 central facilities, 4 regional facilities, and 10 field facilities).

From 1995 through 2001, $19.5 million in hardware and software to support AICMS was procured and transferred to MOD. Using this hardware and software, simplified distributed database architecture was developed and agreed to by MOD. The architecture calls for two common designs; one for the central command posts and the other for all other sites. The communications requirements among AICMS sites will be provided by MOD.

To simplify certification at individual sites, a proof of concept consisting of installation of hardware and software in an approved modular facility will be conducted at the Security Assessment and Training Center (SATC). AICMS will be operational when required hardware and software is installed at all 18 AICMS facilities, initial training and data entry is completed, and the system is certified to meet MOD standards. This project is scheduled to be completed in FY 2005.

The estimated cost for this project remains $50.2 million.

Description of CTR Activities Carried Out in FY 2002: Black & Veatch International completed certification of hardware and software. The facility design was finalized and approved. A contract option was awarded to Black & Veatch International for modular facilities at 16 AICMS sites and to construct a new facility at the Central Command Post in Moscow.

Guard Force Equipment and Training

Five-Year Plan, Purpose, and Resources: This project provides specialized equipment, training aids, associated training, and logistics support to enhance the capability of MOD's guard force to deny access to nuclear weapons storage areas. Small Arms Training Systems (SATS) and live-fire shooting ranges (pop-up targets) have been procured. Hand-held and base radios with associated support items (repeaters with antennas, additional batteries, and chargers) also are being procured. This project has been extended from FY 2003 to FY 2004 to insure that MOD successfully installs all shooting ranges.

Sixty SATS with modified weapons and three authoring stations to create simulator scenarios have been procured through Firearms Training Systems, Inc. Instructor training (for system installation, operation, and maintenance) and one year of logistics/maintenance support will be provided. The procurement of live-fire shooting ranges from Caswell International Inc. includes 12 sets for outdoor operation, 30 pop-up target mechanisms per range, spare components, and instructor training for system installation, operation, and maintenance.

The estimated cost of this project remains $20.6 million.

Description of CTR Activities Carried Out in FY 2002: A contract for procurement of hand-held and base radios was awarded to Izhevsky Radiozavod, a Russian firm. Forty-four SATS and one live-fire shooting range were delivered.

Nuclear Weapons Storage Site Support

Five-Year Plan, Purpose, and Resources: This project will provide support equipment for nuclear weapons storage sites and has established a Safety Enhancement Center (SEC). Support equipment will include fire fighting, site preparation and maintenance, environmental control, and safety equipment. All equipment is stand-alone and will not require integration with existing nuclear weapons safety and security, command and control equipment. The procurement of site support equipment will be completed in FY 2004.

The SEC is addressing MOD's safety concerns regarding aging equipment located near nuclear weapons, such as boilers, piping, and weapons handling equipment. The SEC supports field inspections and laboratory analysis to certify the continued operation of field equipment that supports movement and storage of nuclear weapons destined for dismantlement. The SEC also provides MOD with the capability to extend the service life of this equipment. The U.S. Army European Research Office (ERO)-United is procuring and installing equipment, designing and renovating the laboratory, and conducting training. Development of the laboratory information management system will take place in FY 2003. Project support of the SEC will continue through FY 2007.

The estimated cost of this project remains $60.4 million.

Description of CTR Activities Carried Out in FY 2002: The Raytheon Technical Services Company completed the procurement of 20 mini-tractors, 20 excavators, 30 bulldozers, 103 chain saws, and 47 general-purpose tool kits to maintain clear zones around the sites and to install the Quick Fix fencing. Forty-five fire trucks with related fire-fighting equipment, and 11

hot water boilers also were procured. SEC project site renovation, procurement of equipment, laboratory design and renovation, and installation of equipment was completed by ERO. Training at the SEC was initiated, and six operational mobile teams were established.

Site Security Enhancements (SSE)

Five-Year Plan, Purpose, and Resources: This project will enhance the safety and security of Russian nuclear weapons storage sites at national stockpile sites and at Air Force and some Strategic Rocket Force (SRF) and Navy operational storage sites. DOE is providing comprehensive security enhancements to the other SRF and Navy sites. Permanent storage locations that contain either strategic or tactical nuclear weapons will receive security enhancements. DoD is also considering security enhancements at select temporary storage locations.

MOD has provided a database depicting 52 weapons storage areas (WSAs) of various sizes and configurations for which DoD is planning comprehensive security upgrades. DoD has analyzed the data and determined there are 15 large and 37 small WSAs. The large WSAs have an average of five bunkers with a large outer perimeter and a local area perimeter fence around each bunker. The small WSAs have one or two bunkers with one outer perimeter but no local area perimeter fencing.

MOD has also identified temporary storage security requirements at road-to-rail transfer points and warhead demating areas. DoD has agreed in principle to provide security upgrades at road-to-rail transfer points. The specific requirements will be identified during the site surveys of the permanent storage sites.

Security and safety enhancements include Quick Fix fencing used to protect the perimeter of nuclear weapons storage sites, and comprehensive security upgrades. The revised concept is to complete the remaining Quick Fix installations during the comprehensive site upgrades. The upgrades will use equipment from the comprehensive suite selected at the SATC. Only equipment items identified in the individual site designs will be installed. The SITE DESIGNS will identify the amount of effort required to provide the requisite level of security at each site. Assistance includes support equipment, suites of equipment, and training to implement security enhancements. This effort will be supported through an integrating contractor.

The estimated cost of this project increased from $556.6 million to $748.2 million. This increase is due to the addition of security enhancements to select road-to-rail transfer sites, training support, and a better definition of the size and condition of installations requiring upgrades. A contract for procurement and installation of site security upgrades at the first eight sites, and the inclusion of calculated inflation and program management costs were also factors.

Description of CTR Activities Carried Out in FY 2002: DoD awarded a contract to BNI to identify readily available items that can be procured quickly, require no installation and little or no training, and will immediately enhance the security at MOD storage sites. MOD identified eight sites for longer-term upgrades and a contract was signed with BNI to complete the survey, design, and install the upgrades. In addition, testing was completed on all comprehensive

security suite equipment, and MOD and DoD selected the suite of equipment to enhance security at MOD storage sites.

NUCLEAR WEAPONS TRANSPORTATION SECURITY (NWTS) - RUSSIA

In accordance with the NWTS Implementing Agreement, this program supports U.S. nonproliferation objectives by enhancing the security, safety, and control of nuclear weapons during shipment. The Supercontainers and Emergency Support Equipment projects are complete. Ongoing projects include:

- Nuclear Weapons Transportation,
- Railcar Maintenance and Procurement, and
- Transportation Safety Enhancements.

Nuclear Weapons Transportation

Five-Year Plan, Purpose, and Resources: This project assists MOD in the shipment of nuclear warheads from central storage and deployment sites to dismantlement locations. In November 1999, DoD and MOD signed an implementing arrangement that defined the procedure by which DoD funds weapons movements. This implementing arrangement was required due to the sensitive nature of warhead movements that necessitates limited access to these trains. The implementing arrangement provides for Russian facilitating agents who conduct independent oversight of the transportation movements and verify transportation invoices prior to payment to the Ministry of Railways (MOR). Payments are based on kilometers traveled and use published railroad tariffs. Weapons shipments are expected to increase from 66 to 72 trains per year through FY 2009.

The estimated cost for this project increased from $120.9 million to $162.8 million. Increased rail tariff rates based on two years of actual data, and the transportation of nuclear warheads in FY 2008-2009, are the reasons for this revised estimate.

Description of CTR Activities Carried Out in FY 2002: Raytheon Technical Services Company, the integrating agent for this project, supported the movement of 70 train shipments.

Railcar Maintenance and Procurement

Five-Year Plan, Purpose, and Resources: This project supports requirements to maintain MOR certification for the 200 nuclear weapons cargo railcars and 15 guard railcars that support MOD's dismantlement efforts. Prior to the break-up of the Soviet Union, MOD's 12th Main Directorate maintained a fleet of MOR-certified nuclear weapons cargo and guard railcars to transport warheads through the MOR rail system. This project builds on efforts completed in 1996 under the Railcar Enhancements Implementing Agreement with MinAtom that provided and installed security enhancement kits for 100 nuclear weapons (unheated) cargo railcars and 15 guard railcars. Current assistance includes MOR certification maintenance of these railcars and 100 cold weather (heated) cargo railcars while in service. Sandia National Laboratories is the

integrating agent and Tver Railcar Factory is the Russian contractor providing maintenance and certification of railcars.

The project's second task is to either conduct service life extensions on existing heated cargo railcars or to procure 100 new cold weather nuclear weapons cargo railcars to replace railcars at the end of their service life. Service life extensions or production of the 100 new cargo railcars will be performed at Tver Railcar Factory in Russia. If the decision is to produce new railcars, MOD will destroy 200 cargo railcars to ensure that this project does not increase the operational capability to transport nuclear weapons. The 100 heated cargo railcars covered under the railcar maintenance task will be eliminated first and integrated into the procurement schedule. DoD and MOD will mutually agree on the elimination schedule for the additional 100 heated cargo railcars. The procurement of new railcars will also be contingent on MOD sustaining the current warhead shipment rate. This project will continue through FY 2009.

In July 2002, MOD informed DoD that the MOR had permanently taken all 15 CTR-modified guard railcars out of service due to age limits. MOD has requested that DoD procure 15 replacement guard railcars. If it is determined that this request is essential to the movement of nuclear warheads to dismantlement sites**,** DoD may initiate discussions to procure 15 new guard railcars with systems to monitor/control the physical security and safety systems installed on MOD nuclear weapons cargo railcars. MOD will assume responsibility for destruction of the old guard railcars. A contract for procurement of new railcars will be contingent on MOD's continued efforts to meet the elimination process and schedule. Any new railcars that DoD may procure will have improved alarm, monitoring, and access denial systems.

The estimated cost for this project increased from $38.7 million to $45.3 million. This increase is due to a revised cost estimate for railcar certification and maintenance and future estimates for railcar procurement.

Description of CTR Activities Carried Out in FY 2002: Tver Railcar Factory maintained and certified 79 weapons and cargo railcars.

Transportation Safety Enhancements (TSE)

Five-Year Plan, Purpose, and Resources: This project will enhance MOD's accident mitigation capability in support of transportation of nuclear weapons to dismantlement sites. Emergency response vehicles are the key element of this project. Each vehicle contains hydraulic cutting tools, pneumatic jacks, and safety gear. Meteorological, radiation detection and monitoring, and communications equipment are also included. Additionally, an underwater emergency response diving center will be developed. This activity will extend this project from FY 2003 to FY 2005.

The estimated cost for this project increased from $11.3 million to $17.3 million. This increase supports provision of additional equipment and training.

Description of CTR Activities Carried Out in FY 2002: Maintenance of the Information Analysis System software and hardware continued. Seventeen Pomoshnik vehicles were delivered to MOD. Procurement of 15 emergency support equipment module transport trucks, to assist MOD in reducing response time to a nuclear weapons incident, was initiated.

FISSILE MATERIAL STORAGE FACILITY (FMSF) – RUSSIA

Five-Year Plan, Purpose, and Resources: In accordance with the FMSF Construction Implementing Agreement, the FMSF will provide centralized, safe, secure, and ecologically sound storage for fissile material removed from nuclear weapons. The project supports U.S. nonproliferation objectives through enhanced material control and accounting (MC&A) and transparency, which requires confidence that the stored weapons grade fissile material is safe and secure, and that the fissile material will not be reused for nuclear weapons.

The FMSF is designed to accelerate nuclear warhead dismantlement by furnishing fissile material storage. Construction of the FMSF at Mayak, Russia will provide a capability to store 25,000 containers of fissile material. The design incorporates the required support buildings and a receiving/storage building. The FMSF is scheduled for completion in FY 2003. After all certification requirements are completed, Russia will operate and maintain the facility.

The U.S. Army Corps of Engineers (USACE) manages the design and construction of the FMSF. BNI is the integrating contractor for the facilities. USACE, BNI, and the Russian design and construction firms (VNIPIET and South Urals Construction Company, respectively) have jointly developed the construction schedule, which is reviewed and approved by DoD and MinAtom representatives during the semiannual Joint Senior Implementing Group (JSIG) meetings. USACE and BNI have personnel at the construction site daily who inspect the work to verify that it satisfies the construction specifications.

The United States and Russia are negotiating a protocol to the FMSF Construction Implementing Agreement that permits the U.S. to monitor what is loaded in the FMSF. The monitoring regime will measure the nuclear emissions of the material in DoD-provided fissile material containers for conformance with the agreed levels of enrichment of the plutonium or uranium and with a Russian-provided declaration of the type and amount of fissile material stored in the facility. A prototype nuclear emissions measurement system with information barriers to protect classified information was successfully demonstrated to a Russian team of technical experts visiting the U.S. under the Technology Development, Demonstration, and Procurement project. The draft protocol permits a similar system to be used by U.S. monitors during the contemplated six annual monitoring visits to the FMSF.

The estimated cost for this project decreased from $387.1 million to $360.2 million. This is due to savings through value engineering and actual cost negotiations of project tasks.

Description of CTR Activities Carried Out in FY 2002: Facility construction reached 92 percent of completion. All building construction was completed and equipment installation continued. All power supply systems were installed, and systems start-up and testing has begun. The thermal analysis was completed and showed that the facility could be loaded with 80 percent of the fissile material containers (FMCs) filled with plutonium rather than only 50 percent. Security fencing and site grading is nearly completed. Construction, installation, start-up, and testing work are nearing completion.

WEAPONS OF MASS DESTRUCTION INFRASTRUCTURE ELIMINATION (WMDIE) – KAZAKHSTAN

In accordance with the WMDIE Implementing Agreement, the CTR Program will assist Kazakhstan in implementing measures to prevent the proliferation of materials, equipment, and technologies related to WMD.

Fissile and Radioactive Material Proliferation Prevention

Five-Year Plan, Purpose, and Resources: In the summer of 2000, hundreds of radiological sources were found in an unprotected environment. This project will assist Kazakhstan to recover, inventory, and package the sources and transport them to secure storage.

During FY 2001, DoD (in conjunction with DOE, Los Alamos National Laboratory, and DOS) initiated a new trilateral, classified project with MinAtom and the Kazakhstan Ministry of Energy, Industry, and Trade regarding measures to prevent the proliferation of WMD material. Following completion of the assessment phase, measures will be implemented to prevent the proliferation of WMD materials. Execution of these measures will continue through FY 2005.

The estimated cost for this project increased from $13.0 million to $13.5 million. This increase reflects revised contract costs.

Description of CTR Activities Carried Out in FY 2002: A direct contract with the National Nuclear Center of Kazakhstan was signed and work started immediately. Participation in the classified project continued.

CHEMICAL WEAPONS DESTRUCTION (CWD) – RUSSIA

In accordance with the Chemical Weapons Destruction Implementing Agreement, CTR assistance is being used to minimize the risk of unauthorized access, theft, and proliferation of man-portable, weaponized nerve agent portion of Russia's CW stockpile to terrorists or nations of concern by improving the security at two chemical weapons storage sites.

Chemical Weapons Site Security

Five-Year Plan, Purpose, and Resources: This project supports U.S. objectives for the nonproliferation of Russia's chemical weapons and associated capabilities through identification and implementation of security system improvements at the Shchuch'ye and Kizner CW storage sites. These sites contain nerve agent-filled, man-portable artillery, rocket, and missile warhead munitions.

The CTR Program is providing fencing and intrusion detection security sub-systems to enhance security at these two storage facilities. The project will use local Russian contractors to complete construction and installation of equipment at Shchuch'ye by July 2003. The Kizner project will mirror Shchuch'ye implementation with projected completion in August 2003.

The estimated cost for this project remains $20.0 million.

Description of CTR Activities Carried Out in FY 2002: Parsons Delaware, Inc. completed the design and 20 percent of installation and construction for Kizner and 25 percent of installation and construction for Shchuch'ye. Intermediate site security enhancements were completed.

BIOLOGICAL WEAPONS PROLIFERATION PREVENTION (BWPP) - FSU

Currently, all projects in Russia fall under the ISTC Agreement and the ISTC Funding Memorandum of Agreement. The WMDIE Kazakhstan Implementing Agreement provides an additional means to implement BW projects in Kazakhstan. The United States has signed an umbrella agreement and DoD signed an implementing agreement with Uzbekistan and Georgia. DoD is negotiating a similar implementing agreement with Ukraine.

Biosecurity and Biosafety

Five-Year Plan, Purpose, and Resources: This project supports U.S. objectives to prevent the proliferation of the BW science and technology base of the FSU, and to ensure the safe and secure storage and handling of dangerous biological pathogens used for legitimate research at pathogen repositories and in laboratories. Tasks include identification and implementation of necessary physical improvements, and consolidation of dangerous pathogen collections to reduce the number of sites storing pathogens. It supports the Cooperative Biological Research Project by creating an environment in which U.S. and other Western collaborators are able to work safely. This project also identifies excess infrastructure and equipment that can be dismantled.

The Biosecurity and Biosafety project seeks to provide the following benefits to the U.S.:

- Counters outside threats;
- Consolidates and secures, or eliminates, dangerous pathogen collections at biological research institutes;
- Helps counter theft or diversion of BW-usable pathogens by insiders;
- Provides training regarding biosafety practices for research on pathogens;
- Reduces the risk of accidental pathogen release and increases safety for U.S. and other cooperating personnel; and
- Provides firsthand knowledge of former Soviet research, production, and weaponization capabilities to enhance preparedness against biological threats.

The USG estimates that there are approximately 40 FSU institutes that were part of the Soviet BW program. Through the facility and institute assessment activities, CTR assistance will work to consolidate the dangerous pathogens and secure the minimum number of pathogen collections necessary for ongoing research and public health needs. The following institutes have requested support for security enhancements: Vector in Novosibirsk, SRCAM in Obolensk, the All Russian Research Institute for Animal Protection in Vladimir, the Russian Scientific Institute of Phytopathology in Golitsino, and the Pokrov Biologics Plant – all in Russia; the

Scientific Research Agricultural Institute (SRAI) in Otar, Kazakhstan; KIRPC in Almaty, Kazakhstan; the Uzbek Center for the Prevention of Plague and Especially Dangerous Diseases in Tashkent, Uzbekistan; the Institute of Virology in Tashkent, Uzbekistan; the Lviv State Research Institute of Epidemiology and Hygiene, Ukraine; the Bacteriophage Institute in Tbilisi, Georgia; and the National Center for Disease Control, Georgia. All of these sites will receive Quick Fix security upgrades. Portions of some sites will receive comprehensive security upgrades with inventory control consistent with strategic planning and policy guidance. Initial discussions are ongoing with other FSU facilities.

The estimated cost increased from $95.4 million to $182.9 million. This increase is a result of additional emphasis on the BW Proliferation Prevention program, adding CTR Logistics Support (CLS)/CTR Transportation Services support requirements, and reallocation of priorities within the BWPP program to allow for increased Biosecurity and Biosafety projects and BW Threat Agent Detection and Response projects in Kazakhstan, Uzbekistan, Ukraine, and Georgia.

Description of CTR Activities Carried Out in FY 2002: BNI continued as the BWPP integration contractor to assess, develop, and integrate security enhancement projects at FSU biological weapons institutes. Security projects were initiated through the ISTC for upgrades to institutes at Golitsino and Pokrov. DoD and BNI developed follow-on projects for Vector and Obolensk and new projects for Golitsino and Pokrov. Also, DoD contracted with BNI to develop initial projects at five institutes in Kazakhstan and Uzbekistan.

Figure II-2 An estimate of the total amount in millions that will be required by the United States in order to achieve Objective Two of the CTR Program.

Implementing Agreement / Project	Prior Year	FY 2003	FY 2004	FY 2005 - FY 2009	Total*
Nuclear Weapons Storage Security (Russia)					
Automated Inventory Control & Management System	$49.2	$1.0			$50.2
Guard Force Equipment and Training	$20.5	$0.1			$20.6
Nuclear Weapons Storage Site Support	$53.9	$6.5			$60.4
Site Security Enhancements	$211.8	$31.9	$47.9	$456.7	$748.3
Completed Projects	$27.2				$27.2
Nuclear Weapons Transportation Security (Russia)					
Nuclear Weapons Transportation	$37.0	$15.0	$10.2	$100.6	$162.8
Railcar Maintenance and Procurement	$3.8	$4.3	$7.0	$30.2	$45.3
Weapons Transportation Safety Enhancements	$11.0	$0.3	$6.0		$17.3
Completed Projects	$33.4				$33.4
Fissile Material Storage Facility (Russia)					
Fissile Material Storage Facility	$360.2				$360.2
WMD Infrastructure Elimination (Kazakhstan)					
Fissile and Radioactive Material Proliferation Prevention	$11.5	$2.0			$13.5
Chemical Weapons Destruction (Russia)					
Chemical Weapons Site Security	$20.0				$20.0
BW Proliferation Prevention (FSU)					
Biosecurity and Biosafety	$46.8	$9.0	$13.0	$114.1	$182.9
Budget	$886.3	$70.1	$84.1	$701.6	$1,742.1
* Estimated Program FYDP Total					

Objective 3: Increase transparency and encourage higher standards of conduct.

NUCLEAR WEAPONS STORAGE SECURITY (NWSS) – RUSSIA

In accordance with the NWSS Implementing Agreement, this program area enhances MOD's personnel reliability program by providing a capability for drug and alcohol screening and evaluation of personnel who have access to nuclear weapons. It also improves the safety of those personnel by providing dosimeters for radiation and radon detection.

Personnel Reliability and Safety

Five-Year Plan, Purpose, and Resources: This project enhances MOD's capability for drug and alcohol screening and evaluation of personnel who have access to nuclear weapons, and improves the safety of these personnel by providing dosimeters for radiation and radon detection. Under the personnel reliability effort, DoD provides portable drug and alcohol testing equipment, test consumables, and a fixed laboratory. The fixed laboratory urinalysis equipment supports evidentiary-level drug screening and confirmation. Laboratory equipment training was provided to ensure a comprehensive understanding of the lab operation and procedures. DoD currently plans to provide additional portable testing equipment, additional training, and assistance in program development in FY 2003. Test consumables (e.g., test cups) are planned to be provided through FY 2005.

Under the safety effort, DoD provided MOD with 5,700 individual radiation dosimeters, 57 reading systems, and associated support equipment to monitor accumulated whole-body ionizing radiation in personnel working directly with nuclear weapons. Replenishment of consumables will continue through FY 2005.

The estimated cost for this project increased from $10.5 million to $11.9 million. This increase is for additional CTR logistics support and additional portable breathalyzers and polygraphs.

Description of CTR Activities Carried Out in FY 2002: Additional fixed lab equipment training was completed. Saint-Gobain Crystal and Detectors delivered the 22 additional dosimeter systems requested to support the SRF. DOZA delivered 420 radon detectors and calibration equipment to MOD. Saint-Gobain Crystals and Detectors, and DOZA are Russian firms. Raytheon Technical Services Company also provided additional test cups.

BIOLOGICAL WEAPONS PROLIFERATION PREVENTION (BWPP) - FSU

The Cooperative Biological Research project supports U.S. objectives to prevent the proliferation of the FSU BW science and technology base to terrorist groups and rogue states, and to increase U.S. access to FSU BW expertise for prophylactic, preventive, or other peaceful purposes. Elements of the Personnel Reliability and Safety project developed for nuclear weapons handlers and security personnel will be incorporated into the BWPP project. The project:

- Prevents proliferation of FSU BW scientific expertise and preempts potential "brain drain" of scientists to rogue states;

- Increases transparency at FSU biological facilities and encourages higher standards of openness, ethics, and conduct at the scientist level;

- Provides the United States access to this scientific expertise to enhance preparedness against biological threats;

- Provides opportunities for transfer of BW pathogens for additional study in the United States to improve public health and for forensics reference;

- Refocuses research priorities and projects at FSU BW institutes to focus on peaceful purposes; and

- Provides access to infectious disease surveillance data and to pathogen strains.

Cooperative Biological Research - FSU

Five-Year Plan, Purpose, and Resources: The plan is to work with institutes and scientists to which the CTR Program has access, and develop cooperative biological research projects involving dangerous pathogens for prophylactic, preventive, or other peaceful purposes. Through known scientists, the program works to locate other institutes and scientists that were part of the Soviet BW program. The expertise of each scientist and the capabilities of each institute will be assessed to assist with the development of cooperative biological research projects. Both short and long-term projects are planned and ongoing. In the initial stages of project development, DoD continues to benefit from technical reviews by a standing committee of the National Academy of Sciences (NAS). In addition, NAS supports development and oversight of CTR cooperative biological research projects. DoD establishes research priorities for these projects through the DoD Cooperative Biological Research advisory committee.

The Civilian Research and Development Foundation (CRDF), a private nonprofit enterprise created by Congress, assists in the development, implementation, and oversight of research projects as a contractor to DoD. CRDF's work includes maintaining project files, preparing project evaluations and recommendations, and assisting in other coordination activities with ISTC and FSU institutes. Each project has a USG scientific collaborator associated with the research. Collaborators include personnel from the U.S. Army Medical Research Institute for Infectious Diseases (USAMRIID) and the DoD research centers. The ISTC provides the administrative framework for project reviews, payment for completed work, and audits and examinations. Projects are reviewed and approved by the U.S. nonproliferation interagency roundtable and host governments before the proposed research effort can begin.

Thirteen cooperative biological research projects are underway. DoD-assigned projects include:

- DNA Vaccine Against Hantaviral Infection,

- Development of Liposomal Forms of Drugs for Prophylaxis for Infections,

- Study of the Genomic Structure of Crimean Congo Hemorrhagic Fever Virus, and

– Study of *Yersinia pestis* Lipopolysaccharides for Developing Plague Vaccines.

In addition, new high priority smallpox projects that are jointly funded and managed by DoD and the Department of Health and Human Services have begun. These projects include:

– *Variola* (Smallpox) Virus Genome Sequencing,

– Antiviral Drug Development for Orthopox Infection,

– Development of Antiviral Drugs for Marburg Virus,

– Combinatorial Antibody Diagnostics and Treatment of Smallpox Viruses, and

– Rapid Diagnostics of Human-Pathogenic Orthopox Viruses.

DoD will investigate potential projects in non-Russia FSU states.

The estimated cost for this project increased from $79.1 million to $102.5 million. This increase supports expansion of the program to encompass all states of the FSU, and identification of additional institutes with capabilities and expertise of interest.

Description of CTR Activities Carried Out in FY 2002: Two projects were completed and one additional project was initiated. Follow-on contracts were awarded to NAS and the CRDF. DoD managed 14 ongoing projects and is developing 9 new projects.

Figure II-3 An estimate of the total amount in millions that will be required by the United States in order to achieve Objective Three of the CTR Program.

Implementing Agreement / Project	Prior Year	FY 2003	FY 2004	FY 2005 - FY 2009	Total*
Nuclear Weapons Storage Security (Russia)					
Personnel Reliability and Safety	$11.4	$0.3	$0.1	$0.1	$11.9
BW Proliferation Prevention (FSU)					
Cooperative Biological Research	$29.0	$10.0	$9.2	$54.3	$102.5
Budget	$40.4	$10.3	$9.3	$54.4	$114.4
* Estimated Program FYDP Total					

Objective 4: Support defense and military cooperation with the objective of preventing proliferation.

BIOLOGICAL WEAPONS PROLIFERATION PREVENTION (BWPP) – FSU

Currently, all projects in Russia fall under the ISTC Agreement and the ISTC Funding Memorandum of Agreement. Projects in other FSU states may also be initiated under the ISTC agreements. In addition, the WMDIE Kazakhstan Implementing Agreement provides another means to implement BW projects in Kazakhstan. The United States has signed an umbrella agreement and DoD signed an implementing agreement with Uzbekistan and Georgia. DoD is negotiating a similar implementing agreement with Ukraine.

BW Threat Agent Detection and Response

Five-Year Plan, Purpose, and Resources: This new project will promote biosecurity and biosafety at biological facilities in Kazakhstan and Uzbekistan by strengthening dangerous pathogen detection and response networks, enabling discovery of the diversion or accidental release of biological materials, and removing pathogen collections from existing sentinel stations and safely and securely transporting them to central labs for consolidation. These actions will help prevent the proliferation of dangerous pathogens by integrating host nation scientists and institutes with expertise in BW research and production into the ethical international scientific community. The focus of monitoring and consolidation efforts will be on dangerous pathogens posing particular risks for theft, diversion, accidental release, or use by terrorists. This project will continue through FY 2009. The strengthened network will include:

- Secure central reference labs to rapidly diagnose viral and bacterial diseases (human and animal) equipped with modern diagnostics capabilities that meet biosafety standards;
- Sentinel stations to detect suspicious outbreaks among human and animal populations;
- Communications and data storage systems to manage and rapidly disseminate the data generated by the surveillance system and reduce the need to store dangerous pathogen strains at field stations;
- Mobile epidemiological response teams to investigate possible outbreaks, determine their origin, and assess how to prevent their reoccurrence;
- Safe, secure, and efficient pathogen transportation capabilities that follow DoD standards of biosafety and biosecurity; and
- Training of personnel in biosecurity, biosafety diagnostics, and epidemiology.

This project will access medical intelligence; consolidate pathogen collections into central labs; modernize diagnostic capabilities to minimize need for pathogen retention at vulnerable field stations; and develop a network of trained, ethical scientists to prevent, deter,

and contain a bioattack. This project will also enhance Russian smallpox vaccine production capacity to deter and counter smallpox terror threats outside the United States.

The estimated cost of this new project area is $103.0 million.

Description of CTR Activities Carried Out in FY 2002: None.

WEAPONS OF MASS DESTRUCTION PROLIFERATION PREVENTION – FSU, EXCEPT RUSSIA

The WMD Proliferation Prevention Initiative (WMD-PPI) seeks to bolster controls to stem the potential proliferation of WMD across borders of FSU states.

Five-Year Plan, Purpose, and Resources: In accordance with WMDIE implementing agreements with Kazakhstan and Uzbekistan and others as they are put in place, DoD, working closely with DOS, DOE and the Department of Commerce, will provide equipment and logistics support, training, and other support to selected Defense, Interior, National Guards, Border Guards, and Customs organizations of approved non-Russian recipient states. Logistics support will be required for several years while the program assists the recipient states to develop an indigenous logistics capability. Increased efforts by terrorists to secure WMD and WMD components, materials, and expertise have demonstrated a need to improve the security of the non-Russian FSU states' borders, to improve the ability of these states to investigate WMD related thefts and smuggling, and to secure WMD materials within their borders.

The estimated cost for this project increased from $40.0 million to $178.0 million. The increase is due to continued funding of this program that was initiated in FY 2003.

Description of CTR Activities Carried Out in FY 2002: None

DEFENSE AND MILITARY CONTACTS

Five-Year Plan, Purpose, and Resources: In accordance with the Defense and Military Contacts instruments identified in Appendix A, this project responds to DoD's goal to expand contacts between defense establishments to promote U.S. defense objectives in the FSU states. In Russia, these objectives include stemming the proliferation of Russian WMD, supporting implementation of the new strategic framework, and enhancing the U.S.-Russia partnership. In the non-Russian FSU states, these objectives include stemming the proliferation of WMD and increasing U.S. access by strengthening defense partnerships.

To date, DoD has conducted approximately 2,010 events between the United States and the FSU states. Future events will include exchange visits between the Secretary of Defense and the Chairman of the Joint Chiefs of Staff and their FSU states counterparts, bi-annual meetings of the Bilateral Defense Consultations, exchange visits of the states' senior officials, exchange visits between the Director of the Defense Intelligence Agency and the FSU Chiefs of Military Intelligence, exchange visits of defense delegations, and exchange visits between the U.S. Combatant Commanders and key military leaders.

Other activities include visits of senior and mid-level officers; visits between naval, air, and ground units; bilateral exercises; and ship visits. Defense and military relations with

Kyrgyzstan are conducted pursuant to annual Military Contacts programs implemented by U.S. Central Command. Through conferences, seminars, familiarization visits, traveling contact teams, and combined military exercises, DoD has advanced counterproliferation objectives as well as democratic military institutions within the FSU states while furthering U.S. national security interests.

The estimated cost for this project increased from $140.3 million to $175.4 million. This increase supports Defense and Military Contact activities for two additional years.

Description of CTR Activities Carried Out in FY 2002: A total of 423 events were conducted.

Figure II-4 An estimate of the total amount in millions that will be required by the United States in order to achieve Objective Four of the CTR Program.

Implementing Agreement / Project	Prior Year	FY 2003	FY 2004	FY 2005 - FY 2009	Total*
BW Proliferation Prevention (FSU)					
BW Threat Agent Detection and Response		$26.0	$23.0	$54.0	$103.0
WMD Proliferation Prevention					
WMD Proliferation Prevention		$39.8	$39.4	$98.8	$178.0
Defense and Military Contacts					
Defense & Military Contacts (FSU)	$49.3	$18.8	$11.1	$96.3	$175.5
Budget	$49.3	$84.6	$73.5	$249.1	$456.5
* Estimated Program FYDP Total					

Other Program Support

This program area assists overall implementation of the CTR Program in areas that are not unique to established projects, such as supporting negotiations leading to the conclusion of an implementing agreement. Other program support includes implementation of the Audit and Examination program, in accordance with the appropriate umbrella and implementing agreements with recipient states, and overall program management and administration costs.

Audits and Examinations (A&Es)

Five-Year Plan, Purpose, and Resources: The objective of the A&E program is to ensure that assistance provided under the DoD CTR Program legislation is accounted for and used efficiently and effectively for its intended purpose. In accordance with the applicable portions of CTR umbrella and implementing agreements, the USG has the right to examine the use of any material, training, or other services provided under these agreements. A&Es may continue for a period of three years after expiration of the respective umbrella agreements with Kazakhstan, Georgia, Moldova, and Uzbekistan. For Ukraine, A&Es may continue through expiration of the U.S.-Ukraine CTR Umbrella Agreement. A&Es can be performed for CTR projects in Russia for three years after expiration of the applicable implementing agreement.

The estimated cost for this project increased from $5.4 million to $5.8 million. This increase supports the A&E program for two additional years.

Description of CTR Activities Carried Out in FY 2002: DoD conducted 14 A&Es: 10 in Russia and 4 in Ukraine. Through FY 2002, the United States has conducted 126 A&Es in the recipient states.

Program Management/Administration

Five-Year Plan, Purpose, and Resources: Program management and administration funding supports CTR requirements that are not unique to established projects. For example, this effort includes assistance for development of technical requirements during the initial stage of project development before appropriate implementing agreements are signed. Such activities include CTR Program delegation and technical team travel expenses, translator/interpreter support, contracted systems engineering technical assistance, and CTR Program personnel at U.S. embassies in recipient states.

The estimated cost for this project increased from $187.0 million to $223.1 million. This increase is due to extending the program management/administration for two additional years.

Description of CTR Activities Carried Out in FY 2002: Contracted Systems Engineering Technical Assistance (SETA) support was provided by the SAIC Threat Reduction Support Center (TRSC) team, which also included Radian, Inc.; Teledyne Brown Engineering, Inc.; ACS Defense, Inc.; Automation Research Systems, Limited; and ASET International Services Corporation. SETA provided engineering and technical expertise; supported the development of independent government cost estimates; provided logistics, transportation, and export control management expertise; developed draft issue papers, briefings, and reports to senior

management; provided financial management experience; and provided technical and analytical support for source selection boards.

DoD maintained a forward presence in U.S. embassies in Russia, Ukraine, Kazakhstan, and Uzbekistan to provide direct in-country support for CTR Program implementation.

Figure II-5 An estimate of the total amount in millions that will be required by the United States in order to achieve Other Program Support for the CTR Program.

Implementing Agreement / Project	Prior Year	FY 2003	FY 2004	FY 2005 - FY 2009	Total*
Audits & Examinations	$2.3	$0.5	$0.5	$2.5	$5.8
Program Management/Administration	$119.0	$14.2	$12.6	$77.4	$223.2
Budget	$121.3	$14.7	$13.1	$79.9	$229.0
* Estimated Program FYDP Total					

Figure II-6 Summary of CTR Program FYDP Funding by Objective in millions.

Objective	Prior Year	FY 2003	FY 2004	FY 2005 - FY 2009	Total*
1. Dismantle former Soviet Union WMD and Associated Infrastructure	$1,975.2	$234.7	$270.8	$849.3	$3,330.0
2. Consolidate and secure FSU WMD and related technology and materials	$886.3	$70.1	$84.1	$701.6	$1,742.1
3. Increase transparency and encourage higher standards of conduct	$40.4	$10.3	$9.3	$54.4	$114.4
4. Support defense and military cooperation with objective of preventing proliferation	$49.3	$84.6	$73.5	$249.1	$456.5
Other Program Support	$121.3	$14.7	$13.1	$79.9	$229.0
CTR Programs that are complete or require no additional funding	$794.7				$794.7
Total Budget	$3,867.1	$414.4	$450.8	$1,934.3	$6,666.6
* Estimated Program FYDP Total					

III. ACCOUNTING FOR COOPERATIVE THREAT REDUCTION (CTR) PROGRAM ASSISTANCE TO STATES OF THE FORMER SOVIET UNION (FSU) CONDUCTED DURING FY 2002

Statutory Requirements

The Floyd D. Spence National Defense Authorization Act for FY 2001, Section 1308, as amended by the National Defense Authorization Act for FY 2002, Section 1307, *Reports on Activities and Assistance Under Cooperative Threat Reduction Programs*, requires information on accounting for assistance, as follows:

> *"A description of the means (including program management, audits, examinations and other means) used by the United States during the fiscal year ending in the year preceding the year of the report to ensure that assistance provided under Cooperative Threat Reduction Programs is fully accounted for, that such assistance is being used for its intended purpose, and that such assistance is being used efficiently and effectively, including:*
>
> *(A) if such assistance consisted of equipment, a description of the current location of such equipment and the current condition of such equipment (See Appendix D for equipment locations and values. The current condition is addressed throughout the Section III narratives);*
>
> *(B) if such assistance consisted of contracts or other services, a description of the status of such contracts or services and the methods used to ensure that such contracts and services are being used for their intended purpose (See Appendix C for values and Section III Narratives for services description, status and Management actions);*
>
> *(C) a determination whether the assistance described in subparagraphs (A) and (B) has been used for its intended purpose (See Section III narratives) and an assessment of whether the assistance being provided is being used effectively and efficiently; and*
>
> *(E) a description of the efforts planned to be carried out during the fiscal year beginning in the year of the report to ensure that Cooperative Threat Reduction assistance provided during such fiscal year is fully accounted for and is used for its intended purpose (FY 2002 Audits and Examinations are detailed in the Section III narratives. A schedule of future audits is shown at Figure III-1)."*

Methods of Accounting for CTR Assistance

Congress has authorized significant U.S. resources to implement the CTR Program and DoD has a comprehensive program to ensure that CTR assistance is fully accounted for, properly maintained, and is used efficiently, effectively, and for its intended purpose. On rare occasions, and as long as it does not interfere with CTR activities, DoD has authorized the use of DoD-provided equipment for other incidental purposes that further U.S. national security objectives. In FY 2002, accounting for CTR assistance was accomplished through several methods that

collectively provide a detailed picture of how DoD is executing the CTR Program and whether CTR assistance is being properly employed by FSU recipient states. The methods used to account for CTR Program assistance include:

- Audits and Examinations under applicable implementing agreements;
- Application of U.S. Federal Acquisition Regulations (FAR) and appropriate DoD regulations including acquisition procedures in contracting with U.S. and FSU participants, e.g. the use of fixed price contracts with payment and contract deliverables by FSU enterprises;
- Use of good business practices by the CTR management team;
- Frequent direct observations of CTR assistance at implementation sites in the recipient states, including site visits by CTR program management, project managers, technical teams, and CTR Logistics Support (CLS) personnel;
- Oversight provided by on-site U.S. contractors; and
- Data and reports supplied by other government agencies and independent auditors, e.g., DOE Assurance Program.

Audits and Examinations

Audits and Examinations (A&Es) are a key component of DoD's system of accounting for CTR Program assistance. In accordance with the applicable CTR umbrella and implementing agreements, the U.S. has established the right to examine the use of any material, training, or other services provided under these agreements. For example, the following text is included in Article X of the CTR Umbrella Agreement between the United States and Ukraine:

> *"Upon written request provided thirty days in advance, representatives of the Government of the United States of America shall have the right, in order to confirm that the use of material, training, and services provided by the United States of America is in accordance with this Agreement, to audit and examine the use of any such material, training, or services at sites of their location or use, and shall have the right to audit and examine any records or documentation connected with the use of such material, training, or services."*

For projects in Ukraine, A&Es may be conducted through the expiration of the U.S.-Ukraine CTR Umbrella Agreement. For the agreements with Kazakhstan, Moldova, Georgia, and Uzbekistan, DoD can conduct a program of A&Es for a period of three years after the expiration of the respective umbrella agreement. A&Es of Russian projects can be performed for a period of three years after the expiration of the applicable implementing agreement.

In FY 2002, DoD conducted a total of 14 A&Es in the recipient states: 10 of 15 scheduled in Russia; 4 of 4 scheduled in Ukraine; 0 of 2 scheduled in Kazakhstan; and 0 of 1 scheduled in Georgia. Of the eight A&Es that were not accomplished, five were cancelled in

Russia due to the absence of a new arrangement with MinAtom and lack of approval by Russia of an executive agent for SOAE until August 2002.

Russia interprets the June 15-16, 1999 Protocol that extended the U.S.-Russia Umbrella Agreement also to permit revision of A&E implementing arrangements and guidelines. DoD disagrees and is working with MinAtom to resolve this issue by concluding a new implementing arrangement, which is subordinate to the implementing agreement, to fully implement DoD A&E rights under existing agreements. With the disestablishment of the Ministry of Economics (MinEcon) as Russia's CTR Executive Agent for SOAE, DoD signed a new SOAE Implementing Agreement on August 30, 2002 that designates RASA as Russia's new CTR Executive Agent for SOAE. Based on a verbal agreement between DoD and RASA officials, an A&E of assistance provided under the SOAE Implementing Agreement was performed during August 2002. DoD is working with RASA to finalize an implementing arrangement for the conduct of A&Es that includes audits of the use of proceeds from the sale of scrap material.

Two of the remaining three cancelled A&Es were scheduled for Export Control projects in Georgia and Kazakhstan, under Department of State (DOS) responsibility. The final cancelled A&E of the government-to-government communications link (GGCL) Kazakhstan project was to be performed in conjunction with the Kazakhstan Export Control project A&E but was removed from the schedule as the value of assistance provided did not warrant a stand-alone A&E.

Results of FY 2002 A&Es are presented in the Accounting for CTR Assistance by Program Objective (FY 2002) section of this CTR Annual Report for the following agreements and corresponding projects:

Russia: *Nuclear Weapons Storage Security Implementing Agreement* (Automated Inventory Control and Management System, Quick Fix, Personnel Reliability and Safety); *Strategic Offensive Arms Elimination Implementing Agreement* (Liquid Propellant ICBM and Silo Elimination); and *Nuclear Weapons Transportation Security Implementing Agreement* (Supercontainers, Emergency Support Equipment, and Security Enhancements for Railcars); *Chemical Weapons Destruction Implementing Agreement* (Chemical Agent Analytical Monitoring); *International Science and Technology Centers Funding Memorandum of Agreement* (Biological Weapons Proliferation Prevention)

Ukraine: *Strategic Nuclear Arms Elimination Implementing Agreement* (All Projects); *Defense Conversion Implementing Agreement* (Defense Conversion); *Emergency Response Implementing Agreement* (Emergency Response); *Weapons of Mass Destruction Infrastructure Elimination Implementing Agreement* (Weapons of Mass Destruction Infrastructure Elimination)

Through FY 2002, a total of 126 A&Es have been conducted in Russia, Ukraine, Kazakhstan, Belarus, and Georgia.

Efficiency and Effectiveness of the CTR Program

This section describes DoD's efforts to begin integrating more sophisticated tools for efficiency and effectiveness into the implementation processes of the CTR Program, as well as

steps taken from the policy perspective intended to support these efforts. We expect the CTR Annual Report for FY 2005 to reflect a fully mature set of efficiency and effectiveness metrics integrated into the audits and examinations program.

With respect to program implementation, the Defense Threat Reduction Agency (DTRA) adopted seven program management changes in FY 2002 designed to increase efficiency and effectiveness.

First, DTRA awarded "indefinite delivery/indefinite quantity" contracts, known as CTR Integrating Contracts (CTRIC), to five vendors through an open competition. The vendors selected are Bechtel National Services, Inc. (BNI); Kellogg, Brown & Root; Parsons Delaware, Inc.; Raytheon Technical Services Company; and Washington Group International, Inc. The purpose of the CTRIC approach is to streamline CTR procurement without sacrificing oversight. Rather than issue a new contract for every new service or goods procurement action, the CTRIC approach allows DTRA to issue task orders to the prequalified vendors, whose rates have already been accepted and whose track records have been validated. DTRA reports that the CITRIC approach cuts approximately 50 percent of the time needed for a "normal" procurement action. This flexibility proved very important when foreign policy questions regarding CTR certification for Russia delayed the contracting process for the majority of FY 2002.

Second, DTRA adopted cost-plus-award fee arrangements as an incentive to the CTRIC contractors. CTRIC contractors were apprised of award fee criteria at the onset of the contract. DoD believes that these arrangements will show increased effectiveness and efficiency relating to costs, schedules, and overall performance.

Third, DTRA adopted a phased approach to contracting. CTRIC contracts were broken into two phases. The first phase includes a partial mobilization of the contractor team to address permits, land allocation, design changes, base camps, and other pre-construction or elimination tasks. CTRIC contractors are required to complete these tasks before beginning the next phase (including actual construction or elimination activities), which involves more personnel, equipment, and costs. The phased approach builds-in better opportunities for CTR management to react to changes on the ground and to minimize risks.

Fourth, DTRA implemented improved communication systems for project managers in FSU recipient states. Previously, the managers were dependent on the antiquated FSU communications system. During FY 2002, investments in communication improved both telephone and Internet access, thereby providing project managers significantly improved situational awareness and streamlining their reporting. Similar communication systems were also used by CTRIC contractors. We believe these improvements will contribute to effectiveness and efficiency by helping overcome a key implementing challenge endemic to CTR recipient states.

Fifth, DTRA instituted a "knowledge management cost estimating system." The management technique of cost estimating is a key element in any complex program. However, Western-style cost estimating is not generally practiced in the FSU states, depriving CTR management of models or related resources to estimate costs with high confidence. This knowledge gap caused pricing risks for CTR procurement and oversight; the new system is

intended to help mitigate those risks. Individual project managers previously had fragmented information necessary to inform their respective pricing decisions. However, this information was not consolidated in a single database. DTRA's system now permits web-based access from any location in the world to a single data source compiled from methodical logging of documentary data, data from interviews with key government and private sector participants, and labor market survey data from remote areas of the FSU where the CTR Program does business. The knowledge management system enables DTRA to adopt an Integrated Product Team (IPT) pricing system in its CTRIC contacting actions.

Sixth, DTRA developed a system of implementation metrics to gauge performance of key program indicators. The metrics system is used as a measurement tool for actual performance of key program indicators. The system requires all CTR missions to be tied to a DTRA implementation objective. Performance against these metrics was reviewed every quarter by DTRA senior management. In general, the CTR Program was unsuccessful in meeting these metrics during FY 2002, primarily due to delays related to certification. However, the implementation metric system will continue to be used as a management tool.

Finally, DoD instituted a permanent program of semi-annual Executive Reviews involving senior DoD and counterpart Russia CTR Executive Agent officials to review assumptions and expectations for each CTR project. The sessions are attended by both policy and implementation officials from DoD. The results are used by CTR program management to develop detailed documents called Joint Requirements Implementation Plans (JRIPs). The JRIPs identify the assumptions underlying each project and responsibilities of each party. Both parties initial these documents, which are then used as the basis for implementation over the next six months. This process will be expanded to annual reviews with the other CTR recipient states during FY 2004.

With respect to policy oversight of the CTR Program, the Office of the Under Secretary of Defense for Policy (OUSD(P)) adopted a much more active posture in 2002 designed to improve efficiency and effectiveness, among other things

Resolving information flow problems with Congress is an aspect of efficiency and effectiveness that was aggressively pursued in 2002 and in following months. This included delivery to Congress of some ten reports and notifications in a nine-month period, satisfying a number of long-overdue requirements. In general, responsiveness to congressional requirements for information is an element of efficiency and effectiveness. However, resolving the prior backlog of reports also removed limitations on obligation of $207.2 million in FY 2003 funds.

In the past, efficiency and effectiveness in obligation of funds has typically been hampered by the inordinately complex policy-related process that precedes CTR spending. This process includes the Secretary of State's certification of eligibility for countries to receive CTR assistance, DoD notification to Congress of intent to obligate funds, and amending CTR implementing agreements to reflect the new assistance. During FY 2002, OUSD(P) planned for a more forward-leaning DoD approach to this process. The withholding of certification for Russia was a unique factor in FY 2002; nonetheless, DoD's new approach is now a standard operating procedure, and we expect to begin working with DOS in July 2003 to ensure timely certification of CTR recipients for appropriated FY 2004 funds.

Strict Application of U.S. Federal Acquisition Regulations and Good Business Practices.

Under the applicable CTR umbrella and implementing agreements, contracts are awarded in accordance with U.S. laws and regulations. For example, the following text was drawn from Article IX of the U.S.-Ukraine CTR Umbrella Agreement:

> *"In the event that the United States of America awards contracts for the acquisition of material and services, including construction, to implement this Agreement, such contracts shall be awarded in accordance with the laws and regulations of the United States of America…."*

The implementation of U.S. contracting laws and regulations, including the FAR, is central to providing and accounting for CTR assistance in the FSU states. Implementation of the FAR is a non-negotiable item in contract negotiations with enterprises in the United States, FSU recipient states, and other countries where the CTR Program conducts business and ensures that DoD is minimizing costs using an objective metric. The FAR, along with DoD good business practices, provide assurances that the CTR Program is executed properly. In addition, the following principles have proven important to providing CTR assistance in the FSU states:

- Rigorous discussion of requirements before work is contracted, including site access to ascertain the scope of the problem and possible solutions;
- Independent USG cost estimate before beginning procurement;
- Prohibition against transferring any assistance to other entities without written USG approval;
- Contract compliance with the Competition in Contracting Act;
- Government-to-government ("umbrella") agreements ensure tax and customs exemptions, liability protections, and privileges and immunities for the United States and its citizens, and the right to verify assistance is used for intended purposes;
- FSU private companies may compete for CTR contracts, but only under a firm fixed price contract;
- U.S. project managers must be allowed to monitor closely the cost, schedule, and performance of the contractor and the project;
- U.S. project managers must be able to monitor any work promised by the recipient that is integral to the project success (e.g., infrastructure needed to support a CTR-constructed demilitarization site);
- Payment only upon inspection and acceptance by a USG representative;
- Payment to recipient country contractors or subcontractors is made only after work is completed;

- Only accepted Western financial accounting methods may be used for non-fixed price contracts;

- U.S. project managers must be able to monitor the payments from the USG to the bank selected by the contractor; and

- U.S. project managers must be able to meet regularly with CTR contractors (both U.S. and foreign) to review their work and discuss their banking arrangements and financial situations.

During FY 2002, CTR program management teams conducted 140 trips that provided opportunities to develop requirements, negotiate contracts, agreements and arrangements, monitor contractor performance, resolve program concerns and assess whether CTR-provided services, materials, and equipment were used for their intended purpose in an efficient and effective manner.

These trips were in addition to on-site project management support from USG teams and U.S. contractors who reside in-country and frequently submit written project status reports to CTR program management. For example, the U.S. Army Corps of Engineers has an on-site presence to manage the FMSF construction project.

CTR Logistics Support (CLS) personnel complement the visits of CTR program managers through the performance of maintenance on DoD-provided equipment. The CLS contractor provides further assurance that equipment is properly controlled through the performance of equipment inventories and the transfer of custody process.

Additionally, the CLS contractor trains recipient-country personnel to assure that the equipment is properly used. CTR training programs cover the operation, maintenance, and logistics requirements for major equipment and software items to ensure that recipient states are prepared to properly use and maintain equipment.

During FY 2002, CLS teams from logistics support bases in Russia, Ukraine, and Kazakhstan conducted 768 site visits to CTR project locations in the recipient states. The teams performed 5,691 maintenance actions. The majority of these actions is attributed to particular projects and is detailed in the narratives that follow for each CTR project.

Also during FY 2002, the CLS contractor reported an aggregate Operational Readiness Rate of greater than 99 percent for CTR equipment. Reports from the CLS contractor are used in the development of DoD's assessment and the CTR Annual Report to Congress. In FY 2002, the CLS contractor did not report any misuse of assistance.

CTR program management visits to Russia, Ukraine, Kazakhstan, and Uzbekistan, on-site USG and contractor support to CTR projects, and FY 2002 CLS actions are detailed in the Accounting for CTR Assistance by Program Objective (FY 2002) section of this report.

National Technical Means (NTM)

The CTR Program uses NTM as a supplemental method to enhance CTR's confidence that assistance is being used as intended. During FY 2002, NTM did not report any instances of potential misuse of CTR assistance.

Other Department and Agency Audit Activity

Defense Enterprise Fund (DEF): The DEF is a privately managed venture capital fund formed to promote the conversion of FSU defense-related industries into non-military commercial businesses. The DEF makes investments in chosen joint ventures between FSU enterprises and Western partners. As of September 2002, the DEF was capitalized with approximately $66.7 million (from the USG). To date, the DEF has funded more than $43.4 million to 15 projects, 4 of which are ongoing.

As a not-for-profit entity incorporated in June 1994 pursuant to the NDAA for FY 1994, the DEF makes equity investments, loans, and grants to qualified joint ventures and other projects. Accountability for assistance is managed through the ongoing business relationships established by the DEF, regular visits and reviews by the CTR program manager, and annual financial audits by Ernst & Young LLP.

Science and Technology Centers (STCs): DOS oversees all Science and Technology Center activities, including those supported through DoD partner relationships. Since STC activities are subject to a separate government-to-government agreement, monitoring of the STCs is conducted through mechanisms similar to CTR activities. DOS sits on the STC Boards of Governors and votes the U.S. position on project funding based on an interagency review of proposed projects. Board of Governors meetings are conducted quarterly for the ISTC and semi-annually for the Science and Technology Center – Ukraine (STCU). The ISTC and STCU conduct project oversight to ensure that funds are used as approved by their Boards of Governors.

Each active ISTC/STCU project receives an on-site monitoring visit at least once a year and is subject to ISTC/STCU audit. Financial audits of the STCs, both internally and for specific projects, and the monitoring of technical progress of projects funded by the STCs are key management activities. The accounting firm of Deloitte Touche Tohmatsu audits the ISTC annual financial report. The ISTC and STCU publish annual reports on the program.

The Defense Contract Audit Agency (DCAA) completed audits of four ISTC research projects. The DTRA Cooperative Biological Research Program manager and a senior project manager from the CRDF provided technical support to the DCAA audit teams. A review of the relevant audit reports disclosed that satisfactory technical progress was attained for each of these projects. However, DCAA stated that timekeeping and equipment controls at the performing institutes were inadequate. These concerns were conveyed to the ISTC Chief Financial Officer who generally concurred with the DCAA findings and responded favorably to the audit team recommendations.

Department of Energy (DOE) Assurance Program: DOE reports that assistance provided to recipient states is being used for intended purposes and there is no evidence of material

diversion. Since DoD no longer funds the DOE MC&A/PP program, DOE reported on their program to Congress in the Initiatives for Proliferation Prevention Program FY 2002 Annual Report.

Civilian Research and Development Foundation (CRDF): The CRDF is a non-governmental, nonprofit foundation established by the National Science Foundation and supported through government funds, private funds, and DoD contracts for services. The CRDF is chartered to provide an alternative to the proliferation of WMD expertise, to advance defense conversion, and to assist with the development of market economies through joint projects with non-military commercial potential.

DoD contracts with the CRDF to assist with cooperative research. This activity is not managed by DoD and is not subject to A&Es applicable to other CTR activities. However, PriceWaterhouseCoopers LLP will conduct an audit of the financial status of the CRDF as of December 2002. The audit will be conducted in accordance with generally accepted auditing standards; Government Auditing Standards issued by the Comptroller General of the United States; and Office of Management and Budget Circular A-133, "Audits of Institutions of Higher Education and Other Nonprofit Institutions".

Initiatives for Proliferation Prevention (IPP): The IPP program is a DOE initiative similar to the ISTC project. The IPP establishes collaborative efforts between DOE's National Laboratories and the National Institutes of the FSU states to hire FSU scientists, primarily nuclear scientists and technicians, to work on non-military research projects with a high potential for commercialization. This activity is not managed by DoD and is not subject to A&Es. However, DOE performs its own review of the IPP projects and provides financial and programmatic data in the FY 2002 Annual Report of DoD-Funded U.S./FSU Collaborative Research and Development Programs.

Accounting for CTR Assistance by Program Objective (FY 2002)

The Accounting for CTR Assistance by Program Objective (FY 2002) Section that follows reports on CTR assistance using data gathered from A&Es, application of the FAR and appropriate DoD acquisition procedures; site visits by CTR program management (project managers, technical teams, on-site U.S. contractors and CTR Logistics Support personnel); and information supplied by other government agencies. This section is organized by the four CTR Program Objectives, applicable CTR implementing agreements, and subordinate projects. Paragraph numbering is cross-referenced to the Program To Date Obligations by Category analysis amounts shown in Appendix C and the CTR Equipment and Locations as of September 30, 2002 in Appendix D.

Objective 1: Dismantle former Soviet Union (FSU) Weapons of Mass Destruction (WMD) and associated infrastructure.

1.1 STRATEGIC OFFENSIVE ARMS ELIMINATION (SOAE) - RUSSIA. In accordance with the SOAE Implementing Agreement, CTR assistance has been provided through the following ten projects: Heavy Bomber Elimination Equipment, Emergency Response Support Equipment, Solid Propellant Disposition Facility, Solid Propellant ICBM/SLBM and Mobile Launcher Elimination, Liquid Propellant Disposition Systems, Liquid Propellant ICBM and Silo Elimination, SLBM Launcher Elimination/SSBN Dismantlement, Low Level Radioactive Waste Volume Reduction, Spent Naval Fuel Disposition, and Liquid Propellant SLBM Elimination.

General CTR Logistics Support (CLS): The CLS contractor and subcontractors made 79 trips and performed 758 maintenance actions at SOAE sites in Russia during FY 2002. The CLS contractors also provided transfer of custody, equipment certification, and site coordination services. Visits attributable to individual projects are detailed in the program management section of the relevant SOAE project.

Program Management: DoD management and technical teams made four trips involving the entire SOAE program. DoD teams met with RASA officials to discuss the impact of certification requirements and site access restrictions on future work. Management teams also held high-level discussions concerning: value added tax charges; draw-down schedules for ICBMs, ICBM silos, and SLBMs; and proposed changes to the SOAE Implementing Agreement.

1.1.1 *Heavy Bomber Elimination Equipment*. This project, which provided support to dismantle heavy bombers in Russia, has been completed. Logistics support was terminated in April 2000, and some of the equipment was transferred to Krasnoyarsk and Sergiev Posad to support SLBM dismantlement and to Zvezdochka for SLBM launcher elimination/SSBN dismantlement. DoD planned to transfer all remaining equipment to other CTR projects by the end of October 2002 after which the project would be closed and logistics support discontinued. (Note: As of January 2003 only one piece of equipment remained to be transferred.)

Location: Engels Air Base.

Program Management: A DoD management team made one trip in support of this project. The program manager met with RASA officials to discuss redistribution of DoD-provided equipment to other SOAE projects. Additionally, the CLS contractor made 2 visits to project sites and performed 21 maintenance actions on DoD-provided equipment. During these visits, no equipment was observed in use for other than its intended purpose.

1.1.2 *Emergency Response Support Equipment*. This project provides equipment for an emergency response train to assist Russia in responding to accidents involving the transportation of ballistic missiles and associated liquid propellants.

Location: Krasnoyarsk.

Program Management: The CLS contractor made 5 visits to project sites and performed 32 maintenance actions on DoD-provided equipment. During these visits, no assistance was observed in use for other than its intended purpose.

1.1.3 *Solid Propellant Disposition Facility (SPDF*). The Solid Propellant Disposition Facility was to provide a low-pressure contained burn system to remove the propellant from solid rocket motors (SRMs). DoD was advised by RASA that it is not possible to acquire the necessary land to construct the SPDF. Russia has proposed to invest its own funds to convert two open burn facilities to semi-closed burn facilities and complete an existing closed burn facility. The project is completing the design phase. Design documentation will be reviewed for completeness and then will be held in reserve. (See Section II for more details.)

Location: Votkinsk.

Program Management: DoD management and technical teams made three trips. They conducted technical and programmatic discussions with RASA and local government officials concerning land allocations, design reviews and the completion of environmental monitoring plans. Additionally, a site visit was completed to evaluate and inspect the preparation of construction project offices for on-site contractor use. The CLS contractor made one site visit in support of this project. During these visits, all observed DoD-provided assistance was being used for its intended purpose.

1.1.4 *Solid Propellant ICBM/SLBM and Mobile Launcher Elimination*. As currently conceived, this project will eliminate SS-N-20 solid propellant SLBMs, 56 SS-24 solid propellant missiles, 39 SS-24 rail mobile launchers, 356 SS-25 solid propellant missiles, 358 SS-25 road mobile launchers, and 12 deployment bases in accordance with the START Conversion or Elimination (C or E) Protocol.

Locations: Biysk, Bershet, Bryansk, Kemerovo, Khrizolitoviyy, Kostroma, Krasnoyarsk, Nenoksa, Perm, Piban'shur, Plesetsk, Surovatikha, Votkinsk, and Zlatoust.

Program Management: DoD management and technical teams made 16 trips. Program management inspected and approved contract deliverables such as the Bryansk Rail Mobile Launcher Elimination Facility Upgrade, preparation work at Plesetsk for movement of rail mobile launch vehicles to Bryansk, infrastructure upgrades, rail renovations, contractor safety plans, completion of security facilities, and new roads and rail construction. Several trips included a review of infrastructure upgrades to an existing facility in Bryansk necessary to provide the capability to eliminate the SS-24 rail mobile launchers. During one trip, the team reviewed the elimination process for an SS-24 launcher and confirmed the first elimination.

Other trips focused on developing the requirements for implementing projects to eliminate the SS-24 and SS-25 ICBM systems and bases and to eliminate additional

SS-N-20 SLBMs. Several trips were made to Surovatikha to observe progress in constructing SS-24 ICBM storage warehouses.

Program management was supplemented by an on-site U.S. contractor hired in February 2002 to construct two SS-24 missile storage warehouses in Surovatikha. This work was completed in August 2002. During construction the U.S. contractor managed local sub-contractors to ensure the completion of key milestones and provided feedback to project managers in accordance with contractual requirements.

Finally, the CLS contractor made four site visits for this project and performed three maintenance actions on DoD-provided equipment. Based on the reports by program management and technical teams, the on-site U.S. contractor, and the CLS team, all observed DoD-provided assistance was being used for its intended purpose.

1.1.5 *Liquid Propellant Disposition Systems (LPDS)*. This project was to facilitate liquid propellant ICBM/SLBM elimination. However, in February 2002, upon learning that Russia had diverted the fuel and oxidizer to its space launch program, DoD terminated the contract for the oxidizer processing units and stopped work on the propellant disposition contracts. DoD will salvage reusable components of the facility and turn the balance over to Russia. Proceeds from Russia's sales of other components must be used for purposes consistent with CTR objectives.

Locations: Krasnoyarsk.

Program Management: DoD management and technical teams made seven trips to perform project reviews, to observe demonstration tests for both LPDS units, and to participate in a hazards analysis of the Carbon Monoxide Converter to be included in the propellant elimination process. The DoD teams met with RASA and contractors to discuss design proposals related to the mobile oxidizer processing system, manning, technical concerns, certification, and project status.

An on-site U.S. contractor maintained a continuous presence at the LPDS facility in Krasnoyarsk. During FY 2002 the U.S. contractor completed system testing. For the remainder of the year the contractor performed caretaker functions pending a decision on final disposition of the facility.

The CLS contractor conducted 21 visits to project sites, 76 maintenance actions, 5 training exercises, and certification and transfer of custody services for DoD-provided equipment.

Use of Assistance Concern: In February 2002, the RASA informed DoD that Russia had diverted liquid rocket propellant drained from missiles to be destroyed with CTR assistance to their space program and thus significant quantities would not be available for conversion in the facility being constructed by DoD. These events raised concerns about other CTR projects that rely on good faith obligations of the Russian Federation. DoD immediately stopped work on the facilities and implemented a number of management initiatives to eliminate reliance on Russian good faith obligations and regularly verify underlying project assumptions. First, the

Deputy Secretary of Defense requested a DoD Inspector General review of the heptyl situation and other aspects of the CTR Program. Second, a review of all programs was completed and a senior DoD team met in Moscow with the Russia CTR Executive Agent representatives.

DoD reviewed all CTR projects and found several undertakings that relied on good-faith agreements or assumptions. Where appropriate, the reliance on the good faith aspect of these undertakings is being transformed into legally binding amendments to CTR implementing agreements. In addition, each Russia executive agent has agreed to work with the DoD executive agents semi-annually to update and initial a Joint Requirements and Implementation Plan (JRIP). While not legally binding, the JRIPs offer a vehicle for each side to ensure transparency at a very detailed level. The JRIPs will be updated at each semi-annual Executive Review – a program of senior level meetings instituted as a result of the liquid fuel disposition situation.

1.1.6 *Liquid Propellant ICBM and Silo Elimination*. This project will eliminate SS-18 silos and SS-17/18/19 ICBMs in accordance with the START C or E Protocol. The project will deactivate, dismantle, and technically restore a minimum of 130 SS-18 ICBM silos, 20 associated launch control center (LCC) silos, and three training silos. The elimination of SS-18 silos, associated infrastructure, and support equipment is planned to continue through FY 2012 to assist Russia in meeting Moscow Treaty obligations. Equipment to transport missiles and fuel are also maintained and certified to operate on Russian rail lines.

Locations: Aleysk, Dombarovskiy, Dzerzhinsk, Kartaly, Krasnoyarsk, Perm, Piban'shur, Surovatikha, Uzhur, Yedrovo, Moshkovo, Ilyino, Mulyanka, Tambov, Turinskaya, Vanino, and Naro-Fominsk.

A&E: During the period August 19-22, 2002 a DoD team conducted a review of equipment and related records supporting the Liquid Propellant ICBM and Silo Elimination project in Surovatikha and Piban'shur, Russia.

Equipment Accountability: The audit team accounted for all major equipment items by physical observation, inventory, and review of Transfer of Custody documentation. Some discrepancies were noted in quantities and serial numbers of gas-powered cut-off saws. It was later determined that many of the saws had worn out and had either been dismantled for parts in order to extend the service life on other saws, or replaced with new saws purchased through the logistics contract. The team reported that the documents provided by RASA were accurately and professionally maintained and all equipment was under adequate control in well-secured areas.

Equipment Serviceability: The equipment observed appeared to be fully serviceable.

Equipment Usage: All equipment observed in operation was being used for its intended purpose.

A&E Summary: The DoD team reported that accountability, serviceability, and usage of equipment examined appeared to in accordance with applicable agreements. The team also reported that RASA was very cooperative and fully prepared to ensure DoD had access to all equipment and records.

Program Management: DoD management and technical teams made four trips. The teams routinely engaged in programmatic and technical discussions and observed DoD-provided equipment in use for intended purposes. A physical inventory of all construction equipment at the missile elimination and dismantlement facility (MEDF), with the exception of one bulldozer that was being used to support SS-24 storage facility construction, was accomplished on one trip. The CTR logistics contractor was observed performing routine maintenance on the baler.

DoD teams also reviewed progress on railroad repair work and observed operations at buildings constructed for missile dismantlement/neutralization and missile and canister cutting. Additionally, a congressional delegation including Senator Lugar accompanied the DoD team on one visit to the MEDF and observed routine missile elimination operations.

An on-site U.S. contractor maintained a continual presence during FY 2002 at project work sites in Aleysk, Kartaly, and Surovatikha. The contractor ensured that contractual requirements were met for silo elimination and restoration and for liquid propellant missile disassembly and elimination.

The CLS contractor conducted 13 visits to project sites, 220 maintenance actions, and performed certification and transfer of custody services for DoD-provided equipment. Based on feedback from program management, technical teams, the CLS contractor, and the onsite U.S. contractor all observed CTR-provided assistance was being used for its intended purpose.

Unresolved Prior Year Concern: During an FY 1999 A&E, MinEcon initially denied access to some requested sites because they did not receive A&E access approval from MOD. After intervention by the Chief of the General Staff, access was granted to the DoD team. Consistent with normal A&E practices by CTR teams, not all of the sites were visited. During FY 2000, an A&E was scheduled to include reviews at the sites where, during FY 1999, access that had been initially denied was subsequently granted, but the sites were not then visited by a DoD A&E team. However, Russia cancelled this A&E in violation of applicable agreements because certain Russian officials seemed to interpret the U.S.-Russia CTR Umbrella Agreement Extension Protocol as requiring that a new access arrangement to be negotiated and signed. DoD does not agree with this interpretation, but did begin discussions with MinEcon on the possible negotiation of new A&E implementing arrangements to fully exercise DoD's rights in this area. Prior to the successful conclusion of these discussions, MinEcon was disestablished. A new SOAE Implementing Agreement was signed with RASA in August 30, 2002 designating it the Russia CTR Executive Agent for SOAE and authorizing DoD to audit proceeds from Russia's sale of scrap generated by dismantlement activities. DoD continues to work with RASA to finalize new

written implementing arrangements for the conduct of A&Es including guidelines for auditing the proceeds from the sale of scrap. During meetings held July 30 to August 2, 2002 between DoD and RASA officials, a verbal agreement was reached to permit an August 2002 A&E of assistance provided under the SOAE Agreement.

1.1.7 *SLBM Launcher Elimination/SSBN Dismantlement*. This project will eliminate approximately 664 SLBM launchers in accordance with the START C or E Protocol at 5 START-designated SLBM launcher elimination facilities. Additionally, 2 *Yankee* class, 36 *Delta* class, and 5 *Typhoon* class SSBNs will be dismantled. Russia has eliminated 6 SSBNs with a total of 80 launchers using DoD provided equipment and infrastructure upgrades. A total of 37 SSBNs will be eliminated through direct contracts. Contracts have been awarded for the dismantlement of 23 SSBNs (including 1 *Typhoon*). DoD plans to contract for the elimination of 15 additional SSBNs, of which 3 would be contracted for beyond the period of the Five Year Defense Plan.

Locations: Zvezdochka and SevMash (Severodvinsk), Nerpa (Murmansk), Zvezda (Bolshoi Kamen), and Ship Repair Facility 49 (Vilyuchinsk).

Program Management: DoD management and technical teams made nine trips. Teams conducted programmatic and technical discussions, received contract deliverables, completed tours of shipyards and facilities, and assessed progress on submarine de-fueling and dismantlement. DoD teams met with RASA and contractors on several occasions to discuss the submarine dismantlement schedule and to negotiate contracts and contract modifications. Discussions also included proposed infrastructure improvements, installation of a Physical Protection System, and expansion of spent naval fuel cask storage capacities at the On-Shore Defueling Facilities (OSDFs). Site visits were made to Zvezdochka and Zvezda shipyards to assess progress on the construction of the OSDFs, which were completed during FY 2002.

The CLS contractor conducted 25 visits to project sites, 335 maintenance actions, and certification and transfer of custody services for DoD-provided equipment. While conducting the program management trips and CLS site visits, all observed DoD-provided assistance was being used for its intended purpose.

1.1.8 *Low Level Radioactive Waste (LLRW) Volume Reduction (Completed Project).* This project provided facilities to reduce the volume of liquid and solid LLRW at Zvezdochka and solid LLRW at Zvezda Shipyards. Japan is providing the liquid LLRW volume reduction capability at Zvezda. This waste results from the elimination of SLBM launchers and dismantlement of SSBNs at these two START-designated elimination facilities. The LLRW facility at Zvezdochka was commissioned in October 2000 and the LLRW facility at Zvezda was commissioned in August 2001. This project is now complete.

Locations: Zvezdochka (Severodvinsk) and Zvezda (Bolshoi Kamen) shipyards.

Program Management: None, this is a completed project.

1.1.9 *Spent Naval Fuel (SNF) Disposition*. This project supports SSBN dismantlement through dry storage of SNF from 16 of the 37 SSBNs either previously dismantled or planned for dismantlement by direct contract in storage/transportation containers (casks). Reprocessing of SNF has been eliminated from this project, as there will be sufficient dry storage.

Locations: Support facilities at Zvezdochka and SevMash (Severodvinsk), RTP ATOMFLOT (Murmansk), Zvezda (Bolshoi Kamen), and Mayak Production Association (Ozersk).

Program Management: DoD management and technical teams made seven trips. On multiple trips, teams conducted programmatic and technical discussions, received contract deliverables, completed site tours and assessed construction progress. Discussions included the extent to which SNF will be reprocessed under CTR, SNF cask delivery and requirements, and scheduling for SNF shipments. DoD management teams also evaluated proposals and engaged in contract negotiations. While on-site, DoD management and technical teams observed DoD-provided equipment in use for its intended purpose.

1.1.10 *Liquid Propellant SLBM Elimination*. This project assists in the elimination of 642 liquid propellant SS-N-6, SS-N-8, SS-N-18, and SS-N-23 SLBMs. The elimination process includes shipping, defueling, neutralization, and destruction of SLBMs and refurbishment of elimination facilities for SLBMs at the Revda Base, NIIKhSM, and the Krasnoyarsk KrasMash facility. DoD has negotiated contracts for 453 of the 642 liquid propellant SLBMs. A new contract to eliminate 24 SS-N-23 SLBMs at Krasnoyarsk will include a provision for equipment and installation of an ultraviolet system at an existing treatment facility to decontaminate waste water contaminated with rocket fuel a byproduct of dismantlement procedures. Currently, this contaminated water is stored in tanks. This Liquid Propellant SLBM elimination project is expected to be completed by FY 2012, an extension of seven years from last year's CTR Annual Report because of the Moscow Treaty and recalculated draw down schedule.

Locations: Revda Base, Yuzhnorechensk, Sergiev Posad Design Institute, and Krasnoyarsk KrasMash facility.

Program Management: DoD management and technical teams made four trips. On multiple trips, teams conducted programmatic and technical discussions. Topics included the status of letting a contract to begin dismantling SS-N-23 missiles and negotiations with Russian representatives concerning contractor site access during the SS-N-23 dismantlement process.

DoD teams also visited Sergiev Posad and Krasnoyarsk to review project progress and to conduct inspections and inventories of missiles transported, de-fueled, and

eliminated. Acceptance of contract deliverables and discussions regarding payments were also completed during these trips.

The CLS contractor conducted 8 visits to project sites, 66 maintenance actions on CTR equipment, and certification and transfer of custody services for DoD-provided equipment. During the program management trips and CLS site visits, all observed DoD-provided assistance being used for its intended purpose.

1.2 CHEMICAL WEAPONS DESTRUCTION (CWD) - RUSSIA. In accordance with the Chemical Weapons Destruction Implementing Agreement, DoD is assisting Russia with the safe, secure, and environmentally sound destruction of its chemical weapons stockpile; specifically a portion of the nerve agent stocks. There are four major projects under this agreement: establishing a pilot Chemical Weapons Destruction Facility (CWDF), providing Chemical Agent Analytical Monitoring (fixed site and mobile), Chemical Weapons Production Facility (CWPF) Demilitarization, and Chemical Weapons Site Security (Objective 2).

General CTR Logistics Support (CLS): The CLS contractor conducted 34 site visits, 9 maintenance actions, and transfer of custody services for DoD-provided equipment.

1.2.1 *Chemical Weapons Destruction Facility (CWDF).* In accordance with the Chemical Weapons Destruction Implementing Agreement, the U. S. portion of this project will create a CWDF for organophosphorus (nerve) agent-filled munitions. The project includes process development, process/facility design and construction, equipment acquisition and installation, system integration, training, and facility start-up.

Location: Shchuch'ye.

Program Management: In-country personnel from the office of the U.S. Army Program Manager for Chemical Demilitarization and the U.S. Army Corps of Engineers, and those assigned to the Chemical Weapons Destruction Support Office (CWDSO) include about 92 in Moscow, 17 in Shchuch'ye, and 16 in Volgograd. Program office personnel conducted 31 trips in support of this project.

DoD project managers and contractor personnel visited the State Scientific Institute of Organic Chemistry and Technology (GosNIIOKhT) and the Planovy Test Facility to support the scale-up of the Russian two-stage chemical agent destruction process and destruction process line development.

DoD project managers and contractor personnel have a day-to-day presence in Shchuch'ye to direct pre-construction activities that began in January 2001. The contractor personnel provide weekly status reports to the program manager for follow-up and consideration.

In addition to the CWDSO oversight, the CLS contractor conducted 15 site visits, certification, and transfer of custody services for DoD-provided equipment in FY 2002. During each CLS and CWDSO team visit, equipment observed was in good condition and all assistance provided was used for intended purposes.

1.2.2 *Chemical Agent Analytical Monitoring*. In accordance with the CWD Implementing Agreement, this project provided an analytical monitoring capability to support the Russian CWD program. This capability was achieved through the renovation of a fixed site central CWD analytical laboratory (CAL) at the State Scientific Institute of Organic Chemistry and Technology in Moscow, and through the purchase of three mobile analytical laboratories.

Locations: Moscow and Planovy.

A&E: During the period October 1-4, 2001, a DoD team conducted a review of training materials and equipment of the CAL at the Moscow GosNIIOKhT. The team also reviewed three mobile laboratories; one each at GosNIIOKhT, the MOD Chemical Defense Academy in Moscow, and Shchuch'ye, Russia.

Equipment Accountability: The audit team visually examined nearly all equipment at the above locations. No significant discrepancies were noted.

Equipment Serviceability: The CAL analytical equipment is relatively new and in good working order. The mobile lab equipment appeared to be in good condition.

Equipment Usage: On-site A&E did not indicate use other than for the intended purpose. The team observed ongoing work in several labs at the CAL and noted a portion of the mobile lab equipment had been removed for use in fixed locations.

A&E Summary: The A&E was conducted successfully and ahead of schedule. The analytical equipment was properly accounted for, in excellent condition, and being used for intended purposes. The team noted that the cooperation of local escorts was outstanding.

Program Management: The CLS contractor conducted 19 visits to project sites, 9 maintenance actions, and certification and transfer of custody services for DoD-provided equipment. During these trips all observed DoD-provided assistance was being used for its intended purpose.

1.2.3 *Chemical Weapons Production Facility (CWPF) Demilitarization*. In accordance with the CWD Implementing Agreement, this project will demilitarize former nerve agent weapons production facilities at OAO Khimprom, Volgograd and OAO Khimprom, Novocheboksarsk.

Locations: Volgograd and Novocheboksarsk.

Program Management: DoD management and technical teams made one trip and assessed the demilitarization status at two former Chemical Warfare Production Facilities: Independent Plant 4, OAO Khimprom, Novocheboksarsk, and OAO Khimprom, Volgograd. The team also inspected the following contract deliverables: demilitarization of building 304b, disposal of demolition debris, and video documentary of the demilitarization. This meant that Phase II, the demilitarization of buildings 301, 302, 304b, 307, 311a, 608, 602a, 1089, and 1123, was complete.

Additionally, the team discussed the condition and order in which work will be performed in Phase III, including which buildings to be destroyed. During this trip all observed DoD-provided assistance was used for its intended purpose.

1.3 BIOLOGICAL WEAPONS INFRASTRUCTURE ELIMINATION - FSU. Through the ISTC agreement with the United States, the WMDIE Kazakhstan Implementing Agreement, and Implementing Agreements with Uzbekistan, Ukraine, and Georgia, this project will result in the permanent dismantlement of research and development, test, and production facilities and equipment as well as dangerous pathogens at FSU Biological Research and Production Centers including the State Research Center for Applied Microbiology at Obolensk, the All-Russian Research Institute of Phytopathology in Golitsino, Vector, Pokrov, and the KIRPC. The projects will engage FSU BW scientists and technical experts in transparency and non-offensive biological research activities.

Locations: Almaty, Golitsino, Novosibirsk, Obolensk, Otar, Pokrov, Voz Island, Samarkand, and Tashkent.

Program Management: DoD management and technical teams made five trips. Management teams developed and presented a pilot plant workshop at the State Research Center for Applied Microbiology (SRCAM) at Obolensk related to the transfer of Biotechnology. Additionally, DoD arranged for Systems Engineer and Project Manager training sessions to enhance demilitarization efforts at SRCAM and Vector. The first class was presented in April 2002.

On several trips, teams conducted design reviews, toured facilities, reviewed documentation related to the design of the Bifido Milk Production Mini-Plant at Vector and reviewed financial information including material purchase requests. DoD teams also inspected computer and office equipment purchased through the ISTC, which was found to be in good condition. Ongoing discussions were held with Bifido management including project status, subcontractor issues, and business marketing plans including training of their marketing staff.

DoD teams provided on-site oversight on Voz Island as contractors searched for and destroyed residual dangerous pathogens.

On-site U.S. contractors supplement program management. These contractors visit project sites approximately ten days per month to oversee the inventory of several buildings that have been used for BW production and research. Equipment with potential dual use capabilities that had been removed from the buildings has been identified and secured. These contractors provide bi-weekly status reports and monthly performance reports. Based on the reports of the U.S. on-site contractors and DoD teams, all DoD-provided assistance was being used for its intended purpose.

1.4 STRATEGIC NUCLEAR ARMS ELIMINATION (SNAE)-UKRAINE. There are nine CTR projects in support of Ukraine's SNAE Implementing Agreement: SS-19 Neutralization and Dismantlement Facility; SS-24 Silo Elimination; SS-24 Missile

Disassembly, Storage and Elimination; SS-24 Propellant Disposition Facility; Bomber and ALCM Elimination; Non-Deployed ICBM Elimination Equipment; Emergency Response Support Equipment; SS-19 Housing (Dual funding under SNAE and Defense Conversion - see 4.4.2.2.); and SS-19 Silo Elimination.

Cooperative Equipment Disposition Team (CEDT): DoD and Ukraine have recognized that as SNAE and WMDIE projects evolve, situations will arise where equipment is no longer needed for the project for which it was procured, and equipment disposition decisions are needed. The CEDT is an advisory, partnership-based forum that provides recommendations on equipment decisions. In this forum, DoD works in concert with integrating contractors and Ukraine officials to allocate equipment among CTR projects in Ukraine or remove the equipment from CTR accountability, possibly by turning it over to Ukraine control. Equipment placed under Ukraine control is subject to compliance with specific guidelines.

General CTR Logistics Support (CLS): The CLS contractor and its subcontractors made 270 trips and performed 4,825 maintenance actions at SNAE project sites. The CLS contractor also provided transfer of custody, letters of verification, preventive and corrective maintenance, and other support to DoD-provided equipment.

Locations: Kiev, Zherebkovo, Lubashevka, Vinnitsia, Feodosia, Dnepropetrovsk, Mikhailyenki, Pervomaysk, Uman, Priluki, Nikolayev, Khmelnitskiy, Shevchenkovo, Pavlograd, Belaya Tserkov, and Uzin.

A&E: During the period from July 15-19, 2002, a DoD team conducted a review of training materials and equipment for the SNAE, WMDIE, and Emergency Response programs at MOD sites in Kiev, Pervomaysk, Dnepropetrovsk, Khmelnitskiy, Mikhailyenki, Vinnitsia, Zherebkovo, and Uman.

Equipment Accountability: The audit team accounted for a majority of the equipment provided for each of these projects either by visual inspection or document review. All records reviewed were found to be well organized and accurate. The team viewed two cranes in Mikhailyenki whose use was of concern (see below).

Equipment Serviceability: The audit team reported that in general all equipment in service was well maintained.

Equipment Usage: All DoD-provided equipment observed in operation was being used for its intended purpose, except as noted below.

A&E Summary: Accountability, documentation, usage, and serviceability of all equipment were in excellent order.

Concern About Use of Cranes: Two Krupp Cranes were provided to Ukraine for removal of lids from SS-24 missile silos. Subsequent to the last lid removal, DoD identified a new requirement for use of the cranes in Pavlograd to lift missile motors in emergency situations. Ukraine asserted that the cranes were not suitable to serve this purpose (i.e. too large, heavy, etc.). Additionally, DoD learned that from

December 2001 to May 2002, a significant number (417) of usage hours had been logged on the cranes. This concerned DoD, as there were no new uses for the cranes within program objectives. The SS-24 silo lid removals had been completed previously.

At the June 12, 2002 annual CEDT meeting, DoD questioned whether the cranes were being used for non-CTR purposes, and reminded the Ukraine representatives that if so, it was a violation of the conditions set forth by the U.S.-Ukraine CTR Umbrella Agreement. Ukraine representatives stated, "The two cranes were located in Mikhailyenki and Zherebkovo. The crane located at Zherebkovo was being used for this (CTR) program for base and equipment elimination...". Ukraine officials did not explain the crane's use in Mikhailyenki.

During the A&E performed in July 2002 of assistance provided to Ukraine, the A&E team viewed the two cranes in Mikhailyenki (the Zherebkovo crane had been moved there subsequent to the CEDT meeting), but was unable to view the inner cabs to determine the current usage hours. Ukraine complied with a subsequent DoD request to move the cranes to support the SS-24 ICBM elimination activities at Pavlograd.

Program Management: DoD management and technical teams made two trips involving the entire SNAE program. The first trip included a technical team led by the SNAE/WMDIE Program Manager during January 2002. Technical and programmatic discussions were conducted with representatives from the Strategic Offensive Arms Treaty Implementation Center, National Space Agency of Ukraine (NSAU), the Ministry of Industrial Policy, and 43rd Rocket Army. During this visit the DoD team saw DoD-provided light vehicles and office equipment being utilized for its intended purpose. Cost and schedule reviews were conducted with key contractors. Subsequent to these discussions, the stores of detselene mixture were provided to the CLS contractor in support of the CTR Program for use as fuel in diesel powered vehicles.

The SNAE/WMDIE Annual Program Management Review was held in June 2002 in Kiev. DoD team members met with Ukraine representatives from MOD and NSAU and integrating contractors supporting these programs. Presentations and discussions covered project progress, areas of concern, equipment issues, etc.

1.4.1 *SS-19 Neutralization and Dismantlement Facility.* In accordance with the SNAE Implementing Agreement, this project assisted Ukraine to neutralize, dismantle, and eliminate components of SS-19 missiles that had been deployed in silos. At completion, all components of 111 SS-19 missiles, 111 SS-19 missile transport and launch canisters, and the guidance/warhead dispensing units from 22 additional SS-19 missiles had been eliminated. Also, 133 SS-19 Aggregate Instrumentation Blocks were eliminated. Initial objectives of this project were completed in March 2001. In April 2002, this project was expanded to include elimination of some of the 32 non-deployed SS-19 missiles, 3 SS-17 missiles, and components of 1 SS-18 missile.

Locations: Dnepropetrovsk, Pavlograd, Kiev, Pervomaysk, Uman, and Mikhailyenki.

Program Management: DoD management and technical teams made five trips. Technical discussions covered contract modifications for SS-19 elimination work. Reviews of preparations for the upcoming elimination work were conducted with the integrating contractor. Technical teams also conducted site tours of buildings to be used for future elimination work in Dnepropetrovsk. Based on the reports from these DoD teams, all DoD-provided assistance was used for its intended purpose.

1.4.2 *SS-24 Silo Elimination*. In accordance with the SNAE Implementing Agreement, this project assisted Ukraine to eliminate all SS-24 ICBM silo launchers by December 4, 2001 in accordance with START requirements. This project also eliminated 46 SS-24 missile launch silos and 4 LCC silos, dismantled missile launch and control center sites, and performed site demolition and technical restoration through October 31, 2002. Subsequently, work was completed on the last LCC silo by the end of first quarter FY 2003.

Locations: Pervomaysk.

Program Management: DoD management and technical teams made six trips. These efforts included: inspection and approval of contract deliverables, such as rail spur repairs at Mikhailyenki; successful transport of ICBMs between project sites; inspection of contractor safety plans; and observation of the final silo elimination blast. Several trips included a review of fuel and salvage material accountability and equipment being stored in the equipment yard.

Other trips included management actions to review project completion timelines and monitor progress. The teams included technical support to assist the program manager in evaluating multiple cost proposals related to the elimination of 17 pieces of START equipment that had been used to move, emplace, and fuel the SS-24 ICBMs in the silos and the elimination of the Bandurka rail transfer station. The teams reported that Germany was also providing assistance to finish silo elimination.

An on-site U.S. contractor provided oversight for the silo elimination effort. Activities and concerns were conveyed to project management through bi-weekly reports on general activities and monthly reports on equipment.

The CLS contractor conducted 121 visits to project sites, 3,463 maintenance actions, and certification and transfer of custody services for DoD-provided equipment. Based on the reports of program management, on-site contractors, and the CLS teams, all observed CTR-provided assistance was being used for its intended purpose.

1.4.3 *SS-24 Missile Disassembly, Storage, and Elimination*. In accordance with the SNAE Implementing Agreement, this project provided assistance to disassemble SS-24 missiles at Pavlograd Mechanical Plant; renovated or constructed, operated, and maintained temporary SS-24 missile storage facilities; eliminated non-motor accountable SS-24 missile components in accordance with the START C or E Protocol; and salvage or dispose of all other missile components.

Locations: Mikhailyenki, Pervomaysk, and Pavlograd.

Program Management: DoD management and technical teams made 11 trips. During 4 quarterly reviews, technical teams and the integrating contractor reviewed the progress of the contract for disassembly and storage of 46 missiles. Also, the Defense Contract Audit Agency (DCAA) and the integrating contractor held meetings to discuss contract proposal audit results. An on-site U.S. contractor provided oversight for the missile disassembly, storage, and elimination efforts. The project manager received bi-weekly reports on general activities.

The CLS contractor conducted 60 visits to project sites, 690 maintenance actions, and certification and transfer of custody services on DoD-provided equipment. Based on reports from the on-site and CLS contractors and program management reviews, all observed DoD-provided assistance was being used for its intended purpose.

1.4.4 *SS-24 Propellant Disposition Facility (PDF*). In accordance with the SNAE Implementing Agreement, this project was conceived to support elimination of Ukraine's SS-24 ICBMs by providing facilities and services required to remove, dispose of solid propellant from SS-24 first, second, and third stage rocket motors, and eliminate the motor cases in accordance with the START C or E Protocol.

Location: Pavlograd.

Program Management: DoD management and technical teams made 11 trips. Multiple trips included review of technical issues related to using the pilot plant to test the behavior of the propellant and related certification issues. Meetings with the integrating contractor discussed the pilot plant design, construction, and testing.

Many instances were reported of non-cooperation, including the Ukraine contractor's refusal to sign contracts or approve design changes. Additional visits included meetings to resolve two stop-work orders issued during April 2002. The first was issued by the Ukraine State Department of Labor Protection with a recommendation that the National Space Agency of Ukraine (NSAU) establish a commission to evaluate the Pilot Plant process and equipment. The second was issued by the U.S. integrating contractor when it discovered the public farming at locations within the explosive safety arc of PDF Building 516/2. These stop-work orders were lifted during May and testing resumed at the Pilot Plant.

An on-site U.S. contractor provided oversight for the PDF construction efforts and conveyed topics of interest to the project manager through the submission of bi-weekly reports for general activities.

Finally, the CLS contractor conducted 2 site visits, 45 maintenance actions, and certification and transfer of custody support for DoD-provided equipment. DoD is concerned about the challenges to this effort related to the Ukraine contractor.

1.4.5 *Bomber and Air-Launched Cruise Missile (ALCM) Elimination*. In accordance with the SNAE Implementing Agreement, this project provided equipment and services to assist Ukraine in eliminating its TU-95 (Bear-H) heavy bombers, TU-160 (Blackjack)

heavy bombers, and Kh-55 (AS-15 Kent) ALCMs. This project has been expanded to include elimination of Tu-22M Backfire bombers and Kh-22 air-to-surface missiles.

Locations: Mikhailyenki, Uzin, and Priluki air bases, and Belaya Tserkov Aircraft Repair Facility.

Program Management: DoD management and technical teams made nine trips, during several of which DoD technical teams held discussions with the Ukraine Air Force concerning TU-22 bomber and KH-22 Kitchen air-to-surface missile eliminations. The DoD teams reviewed CTR-funded road repairs, inspected completed and ongoing bomber engine elimination work at multiple project sites, and met with contractors to discuss technical concerns related to the neutralization, transportation and elimination of Kh-22 missiles, TU-22M missile and bomb pylons and launchers, and Kh-55 ALCM detselene fuel.

During multiple trips, DoD teams reviewed preparatory infrastructure and environmental sampling work at Nikolayev and performed technical and cost development work for proposed Tu-142 Bear aircraft elimination at Nikolayev. DoD personnel also met with U.S. contractors to discuss the planned work schedule, waste removal, technical requirements, cost estimates, and melange elimination.

Multiple discussions were held concerning Ukraine's delays in releasing TU-22M bombers for elimination. DoD management asserted that these delays extended the project life and increased costs. Ukraine noted these concerns and promised to provide additional TU-22M bombers for elimination. As previously reported, DoD had concerns over the control and disposition of a mix composed of diesel fuel and detselene extracted from KH-55 ALCMs. The majority of this mixture was ultimately turned over to U.S. control as planned and distributed for use as a fuel for diesel engines in CTR work in Ukraine.

An on-site U.S. contractor provided oversight at each location where bomber and ALCM dismantlement and salvage efforts are performed. Monthly reports highlight equipment related issues to the project manager for review and action.

Finally, the CLS contractor conducted 87 visits to project sites, 627 maintenance actions, and certification and transfer of custody services for DoD-provided equipment. The observations of the A&E team, project management, on-site U.S. contractor, and CLS teams all indicated that DoD-provided assistance was being used for its intended purpose.

1.4.6 *Non-Deployed ICBM Elimination Equipment (Completed Project).* In accordance with the SNAE Implementing Agreement, this project provided equipment to assist Ukraine in eliminating non-deployed ICBMs.

Location: Mikhailyenki Arsenal, Mikhailyenki.

Program Management: None. This project is complete.

1.4.7 *Emergency Response Support Equipment (Completed Project).* In accordance with the SNAE Implementing Agreement, this project provides equipment for two emergency response units to support ICBM transportation and dismantlement activities related to strategic nuclear forces in Ukraine.

Locations: Kiev, Uman, Pervomaysk, Khmelnitskiy, and Mikhailyenki.

Program Management: This project is completed and no management activity occurred.

1.4.8 *SS-19 Silo Elimination (Completed Project).* In accordance with the SNAE Implementing Agreement, this project, formerly reported as the SS-19 Integrating Contract, provided the equipment and services of an integrating contractor required to manage the removal of missiles; transportation of missiles and propellant; and silo elimination, site dismantlement, and re-grading of 130 SS-19 ICBM silos, 13 ICBM LCC silos, and 2 SS-19 training silos in Khmelnitskiy and Pervomaysk. Equipment from this project has been transferred to the Bomber and ALCM Elimination and SS-24 Silo Elimination projects to maximize cost effectiveness.

Locations: Khmelnitskiy, Kiev, Uman, and Pervomaysk.

Program Management: This is a completed project and no management activity occurred during FY 2002.

1.5 WEAPONS OF MASS DESTRUCTION INFRASTRUCTURE ELIMINATION (WMDIE) - UKRAINE. In accordance with the WMDIE Implementing Agreement, this project assists Ukraine in eliminating the infrastructure previously used by the Soviet Strategic Nuclear Forces to support liquid fuel SS-19 ICBMs and their associated nuclear warheads, including but not limited to fueling stations, maintenance facilities, silos, and nuclear weapons storage and maintenance facilities.

Locations: Khmelnitskiy, Pervomaysk, Zherebkovo, Priluki, Uzin, and Liquid Fuel Storage Sites throughout Ukraine.

A&E: A comprehensive A&E of Ukraine projects was performed from July 15-19, 2002. Assistance from the WMDIE program was included in this A&E. As the majority of assistance was provided under SNAE projects, the results of the A&E are reported there (see 1.4). Based on the observations of the DoD program management team, A&E team, and CLS contractor, DoD-provided assistance was being used for its intended purpose.

Program Management: DoD management and technical teams made one trip for the overall WMDIE program. The DoD team conducted a comprehensive program review and met with MOD officials to discuss problem areas. The CLS contractor conducted a site visit and 85 maintenance actions on DoD-provided equipment.

1.5.1 *Unified Fill Facilities (UFFs)/Nuclear Weapons Storage Area (NWSA) Elimination*. Under the WMDIE Implementing Agreement this project supports the

demilitarization of two liquid missile propellant UFFs associated with the SS-19 ICBM system, two NWSAs associated with the SS-19 and SS-24 systems, and the dismantlement of infrastructure associated with seven regiments of SS-19 ICBM silos at Khmelnitskiy and Pervomaysk.

Locations: Khmelnitskiy and Pervomaysk.

Program Management: DoD management and technical teams made two trips to determine the project's environmental impact. Based on contractor reports and DoD team observations, all DoD-provided assistance was being used for its intended purpose.

1.5.2 *Liquid Missile Propellant and Storage Facilities Elimination*. Under the WMDIE Implementing Agreement, this project currently provides the services and equipment required to eliminate trace amounts of liquid propellant from ICBMs and nuclear air-to-surface missiles and to dismantle equipment and infrastructure at liquid propellant storage and handling facilities in Ukraine.

Locations: Eight liquid fuel storage sites located throughout Ukraine.

Program Management: DoD management and technical teams made four trips. During multiple trips, program management discussed and further developed the Statement of Work (SOW) for this project with the Ukraine MOD. Additionally, the teams worked to get the pre-construction environmental testing completed to ensure the sites are neutralized without complication. Several trips included a review of U.S.–produced Anderson incinerators and Ukraine MOD incinerators. The Ukraine incinerators were chosen because they have permits to operate at the sites.

Other trips included management actions to review project procurement status. Technical support teams assisted the program manager in his evaluation of the cost proposal related to the elimination of the eight Heptyl Fuel Storage Sites.

Additionally, an on-site U.S. contractor completed physical and environmental surveys of eight sites and developed a report for DoD that will support Phase II planning. Bi-weekly status reports and monthly cost performance reports were provided for program management review and action. Based on the on-site contractor reports and team observations, all observed DoD-provided assistance is being used for its intended purpose.

1.5.3 *National Nuclear Storage Site Elimination*. This project will operate in accordance with the WMDIE Implementing Agreement to assist Ukraine in further reducing its capability to support nuclear weapons operations. It will eliminate infrastructure at Raduga previously used by the Soviet SRF to store and maintain nuclear warheads.

Location: Zherebkovo (Raduga), Feodosia.

Program Management: DoD management and technical teams made two trips. During these trips, program management worked with the Ukraine MOD to define the

SOW for this project. Additionally, the team worked to complete pre-construction environmental testing for the site. This helped to define future work requirements by characterizing the waste in the storage area. DoD teams also reviewed the status of project procurements and evaluated the cost proposal related to destruction/elimination of the Raduga and Feodosia Nuclear Weapons Storage Sites.

An on-site U.S. contractor completed approximately 50 percent of the elimination work. The contractor provided bi-weekly status reports and monthly cost performance reports for program management review and action. Based on the reports from DoD technical and management teams and the on-site U.S. contractor, DoD-provided assistance is being used for its intended purpose.

1.5.4 *Airbase Infrastructure Elimination*. Under the WMDIE Implementing Agreement, this new project may assist Ukraine to further reduce its capability to support nuclear weapons operations by eliminating infrastructure critical to sustaining strategic bomber operations at various bomber airbases.

Locations: Priluki, Uzin, and Belaya Tserkov.

Program Management: DoD management and technical teams made three trips. During multiple trips, program management discussed the SOW and the list of proposed deliverables with the integrating contractor, Raytheon Technical Services Company. Additionally, the teams worked with the Ukraine MOD to further develop the SOW at the three sites and clearly defined the infrastructure to be destroyed. On each trip the equipment intended for use on this project was inspected.

1.6 STRATEGIC OFFENSIVE ARMS ELIMINATION (SOAE) - KAZAKHSTAN. Projects established under the SOAE Implementing Agreement include SS-18 ICBM Silo Dismantlement, Unified Fill Facility/Nuclear Warhead Storage Elimination, and Strategic Bomber Elimination. SS-18 ICBM Silo Dismantlement and Strategic Bomber Elimination are completed projects and are not included in this report.

General CTR Logistics Support (CLS): The CLS contractor and its subcontractors provided transfer of custody services related to DoD-provided equipment. CLS conducted two visits and seven maintenance actions.

1.6.1 *Unified Fill Facilities (UFFs)/Nuclear Weapons Storage Area (NWSA) Elimination*. In accordance with the SOAE Implementing Agreement, this project neutralized and dismantled UFFs, deactivated three weapons storage areas, and provided an incinerator to eliminate residual liquid ICBM propellants. Logistics support was provided through the end of FY 2002. As this is a completed project and support will no longer be provided, it will not be included in future editions of this report.

Locations: Derzhavinsk, Chagan Aerodrome, and Zhangiz-Tobe.

Program Management: DoD management and technical teams made one trip to view the successful test of the Anderson incinerators to be used to neutralize liquid rocket fuel tanks so they then can be destroyed, and they participated in a custody transfer

ceremony. The CLS contractor conducted two site visits, seven maintenance actions, and certification and transfer of custody services for DoD-provided equipment. DoD-provided equipment was being used for its intended purpose.

1.7 WEAPONS OF MASS DESTRUCTION INFRASTRUCTURE ELIMINATION (WMDIE) - KAZAKHSTAN. In accordance with the WMDIE Implementing Agreement, this program assists Kazakhstan to dismantle and eliminate WMD infrastructure.

1.7.1 *Biological Weapons Infrastructure Elimination*. This project is assisting Kazakhstan to eliminate the threat posed by proliferation of BW pathogens and by eliminating technical infrastructure designed for BW production, in order to render the facility incapable of producing BW. A U.S. contractor has on-going subcontracts with Joint Stock Company Biomedpreparat to dismantle excess equipment and was negotiating subcontracts to destroy three buildings housing the equipment designed for BW production. These subcontracts can be initiated once U.S./Kazakhstan intergovernmental issues are resolved concerning destruction methods.

Location: Stepnogorsk.

Program Management: DoD management and technical teams made two trips. One DoD team conducted environmental sampling at the FSU BW Facility in Stepnogorsk to determine the level of anthrax contamination at all buildings that originally had BW production equipment. Labs in both the U.S. and Kazakhstan tested the samples and found no residual anthrax contamination.

During the Building 231 implosion preparation and execution phases of this effort, a U.S. contractor was on-site to assist and provide public information. A second DoD team traveled to Stepnogorsk and reported the dismantlement of equipment at Building 231 was completed successfully and safely during December 2001. Based on reports from DoD teams, all DoD-provided assistance was being used for its intended purpose.

1.8 NUKUS CHEMICAL RESEARCH INSTITUTE (CRI) DEMILITARIZATION - UZBEKISTAN. In accordance with the Chemical Weapons Proliferation Prevention Implementing Agreement, this project assists in the demilitarization of the former Soviet chemical weapons research, development, and testing capabilities within the Nukus CRI.

Location: Nukus CRI.

Program Management: DoD management and technical teams conducted one visit in support of this project. DoD teams confirmed the planned dismantlement and disposal of selected infrastructure in all critical laboratories throughout the CRI. The team also confirmed destruction of all chemical analysis equipment, the categorization and disposal of all abandoned unknown laboratory chemicals, and the capping of the nearby landfill. Based on team reports, all DoD-provided assistance was being used for its intended purpose.

Objective 2: Consolidate and secure FSU WMD and related technology and materials.

2.1 NUCLEAR WEAPONS STORAGE SECURITY (NWSS) - RUSSIA. In accordance with the NWSS Implementing Agreement, DoD is providing equipment, materials, services and training to MOD to enhance the safety and security of nuclear weapons in storage and prevent their proliferation. CTR projects supporting this agreement include: Automated Inventory Control & Management System; Personnel Reliability and Safety (Objective 3); Guard Force Equipment and Training; Nuclear Weapons Storage Site Support; Security Assessment, Training, and Logistics; and Site Security Enhancements.

Congress has been notified previously that the sensitive nature of Russia's nuclear warhead storage activities and locations has resulted in the use of non-standard audit and examining of assistance. In 1997 DoD and the MOD concluded "Special Arrangements" which provide for the limited audit of equipment through alternative means, including data on locations (by site designator) of equipment provided, photographs, documentation, letters from MOD attesting to intended use, and examination of sample equipment.

In addition, DoD and MOD are developing an unclassified database to assist this process by tracking equipment on a site-by-site basis segregated into a west and east region. The database will not only provide DoD with a means for efficiently conducting these limited audits across multiple project areas, but will also allow DoD and MOD to more effectively plan comprehensive security enhancements at the individual site level and minimize disruptions to MOD weapons security operations.

For each A&E conducted on items such as site support equipment, Y2K equipment, and Quick Fix, DoD selects a portion of the equipment to be reviewed. Over time, DoD will conduct limited audits on all equipment provided under these projects. Finally, due to the limited access and sensitive nature of weapons security activities, DoD relies on information from NTM and other data to help account for CTR assistance and to measure program effectiveness. Such supporting data used in this capacity is either provided by MOD, project-generated, or directly observed.

Locations: Moscow, Sergiev Posad, and numerous nuclear weapons storage sites throughout Russia.

General CTR Logistics Support (CLS): The CLS contractor and its subcontractor conducted 58 site visits, performed 7 maintenance actions and provided transfer of custody and letter of verification services to confirm that equipment was received by the responsible authority.

Limited Audit: During June 17-27, 2002 a DoD team conducted reviews of a portion of Quick Fix, AICMS, Personnel Reliability Program (PRP), and Y2K related equipment at Moscow and Sergiev Posad. MOD teams were deployed to two nuclear weapons storage sites, one in the west region of Russia and one in the east region.

Equipment Accountability: The DoD team reviewed photographs and documents, and performed physical inspections. One unique identifier was supplied to each of the MOD teams by the DoD team for use in photographing equipment during the site visits. Photographs of the fencing and other sub-components illustrated that the equipment was installed at the sites and was in proper operational configuration. Additionally, a partial inventory was conducted of AICMS equipment located at the Material and Technical Base in Abramovo (Sergiev Posad) and a document review was conducted on Y2K equipment located elsewhere.

Equipment Serviceability: All equipment visually audited was fully serviceable and well maintained, and photographs of the fencing and other sub-components indicated the same. Through discussions with MOD personnel, review of the equipment via photographs and physical inspection, the team concluded that the equipment is fully serviceable and in good working order.

Equipment Usage: Based on the DoD team's review of photographs, physical site inspection, and the certification provided by MOD officials, the DoD team verified that the DoD-provided equipment was being used for its intended purpose.

Program Management: DoD management and technical teams made ten trips to support the entire NWSS program. DoD and MOD representatives met to discuss site access issues related to NWSS projects and protection of MOD sensitive data. MOD officials indicated that Russia had given approval for MOD to develop an agreement with DoD concerning these topics. Multiple discussions also included an automated comprehensive database to track all DoD-provided equipment. During these trips all observed DoD-provided assistance was being used for its intended purpose.

2.1.1 *Automated Inventory Control & Management System (AICMS*). When completed, the AICMS will enhance MOD's capability to account for and track strategic and tactical nuclear weapons scheduled for dismantlement.

Locations: A concept test facility at Sergiev Posad and 18 operational sites throughout Russia including a central site in Moscow.

Limited Audit: During November 12-16, 2001, a DoD team reviewed AICMS-related equipment at Sergiev Posad. A portion of the AICMS equipment located at the Material and Technical Base in Abramovo (Sergiev Posad) was inventoried and a document review was conducted on Y2K equipment located elsewhere.

Equipment Accountability: With minor variances the audit team accounted for all equipment provided for this project by document review. The team reported that the documents provided by MOD were sufficient and in good order.

Equipment Serviceability: Although equipment was visually sighted and identified, the team was unable to confirm equipment serviceability because it was not in an operational mode. However, the documentation review and visual inspection did not indicate that there were any problems in this regard.

Equipment Usage: The review did not indicate use other than for intended purposes.

Limited Audit Summary: The documentation provided by MOD was sufficient and in good order.

Program Management: DoD management and technical teams made five trips. Teams held technical discussions concerning the attestation of fielded AICMS block containers, MOD communication infrastructure implementation, software customization efforts, MOD staff training, and facility construction details. On multiple trips programmatic discussions were conducted to refine the responsibilities of MOD and DoD in the implementation process. One team inspected AICMS equipment at Abramovo. The DoD team reported that equipment appeared to be properly stored and secured.

DoD teams conducted reviews of MOD training requirements. Discussions were held concerning the positive results of the June 2002 AICMS A&E. Teams also worked with MOD to establish a timeline for facility modifications. Technical meetings included the development of a software user interface. DoD program management also discussed pending site access to MOD storage sites and how DoD could utilize those visits to verify work performed by AICMS subcontractors.

Finally, the CLS contractor made three site visits in support of this project and performed transfer of custody services for DoD-provided equipment. Based on reports from the DoD teams and CLS contractor, no DoD-provided assistance was being used for other than its intended purpose.

2.1.2 *Guard Force Equipment and Training.* This project enhances the capability and effectiveness of MOD's security force to protect nuclear weapons storage areas by providing specialized equipment, training aids, training, and logistics support.

Locations: Sixty small arms training systems (SATS) with modified weapons and three authoring stations to create simulator scenarios have been procured through Firearms Training Systems, Inc. Delivery to the Security Assessment and Training Center in Sergiev Posad for certification is expected to be completed during FY 2003. The SATS, along with 12 Live-Fire Shooting Ranges and other miscellaneous Guard Force equipment, will be distributed primarily to nuclear weapons storage sites throughout Russia. This equipment is subject to the special limited audit arrangements and, therefore, will be captured in the site-by-site database.

Program Management: DoD management and technical teams made three trips. These trips included technical discussions relative to SATS, radios, and live-fire shooting ranges. These discussions included equipment certification, the viability of using gas cylinders rather than air compressors at remote sites, final versions of Cyrillic screen displays, and training schedules/issues. Further talks were held regarding the need for well-qualified trainees with proper technical backgrounds and the availability of adequate power sources to properly operate the shooting range layouts. DoD teams also toured the SATS facility to review building security and

equipment requirements. Consistent with the cooperative nature of the CTR Program, DoD personnel negotiated with MOD to provide certain materials and labor to assist and prepare for user training sessions at the Live-Fire Shooting Range.

Finally, the CLS contractor made five site visits in support of this project and performed transfer of custody services for DoD-provided equipment. Based on the feedback from the CLS contractor and DoD management teams all observed DoD-provided equipment and assistance was being used for its intended purpose.

2.1.3 *Nuclear Weapons Storage Site Support*. This project is designed to improve the control, security, and safety of nuclear weapons in storage through the provision of support equipment for fire response, site preparation, maintenance, environmental control, and safety. This equipment will be used to support the Safety Enhancement Center (SEC), a materials laboratory. The SEC contains equipment and a laboratory management system for conducting material analysis to safely extend the service life of nuclear weapons handling equipment and auxiliary storage support equipment, such as boilers, at Russian weapons storage facilities.

Locations: The SEC is in St. Petersburg within Russia's Scientific Research Institute for the Safety of Technical Systems. Other support equipment will be used at nuclear weapons storage sites throughout Russia. Equipment provided for Y2K support is in use throughout Russia at designated MOD sites.

Program Management: DoD management and technical teams made three trips. The teams toured SEC facilities to assess progress and inspect facility renovation work for contract compliance. Technical discussions and document inspection confirmed that Russia had granted licenses for important technical equipment. Subsequently, the team worked with MOD to establish training sessions for users of this equipment.

DoD teams held technical discussions concerning the proper calibration of project equipment. A delegation represented DoD at inauguration ceremonies for the SEC and observed a demonstration of SEC lab equipment. Additional trips included the review of contract deliverables and acceptance of contract line items.

Finally, the CLS contractor made 24 site visits in support of this project and performed transfer of custody services for DoD-provided equipment. Based on the feedback from the CLS contractor and DoD management teams, all observed DoD-provided assistance was being used for its intended purpose.

2.1.4 *Security Assessment, Training, and Logistics*. This project established and outfit the Security Assessment and Training Center (SATC), used for security equipment comparisons, tests, integration of comprehensive suites of appropriate equipment, a location for checkout and processing of procured equipment, and training for MOD personnel to maintain and operate selected equipment. This project is complete, but the facility will support other CTR projects.

Location: Sergiev Posad.

Program Management: DoD management and technical teams made four trips. These teams conducted discussions concerning the vulnerability assessment site design contract. Additionally, project management met with MOD to discuss sensitive information exchanges, upgrade of the Operational Security System at the SATC and vulnerability assessments previously completed by the Russian contractor. These meetings included technical discussions regarding ongoing contract actions to provide safety and support equipment for NWSS projects. An on-site U.S. contractor supports project management by maintaining the SATC and conducting equipment testing and integration. The contractor provides weekly progress and status reports, and monthly cost and performance reports. Based on reports from on-site U.S. contractors and DoD management and technical teams, all observed DoD-provided assistance was being used for its intended purpose.

2.1.5 *Site Security Enhancements (SSE)*. This project will enhance the security of Russian MOD nuclear weapons at storage sites, including both national stockpile sites and operational storage sites at bases of the Russian Navy, Air Force, and Strategic Rocket Forces whose security falls under the control of the 12th Main Directorate. This project also includes the upgrade of security at select storage locations. Examples of temporary storage locations include rail transfer points and warhead demating areas. DoD will provide funding to enhance the security of MOD nuclear weapons storage sites in accordance with current U.S. policy guidance.

Locations: Currently, 123 Quick Fix sets have been procured and transferred to MOD custody. Long-term enhancement equipment has not yet been provided, but will be distributed and used throughout Russia. Following installation, this equipment will be subject to the special limited audit arrangements and captured, along with equipment already provided, in the site-by-site database. At least 1 Quick Fix equipment set is located at each of the 24 sites in the west and 19 sites in the east.

Limited Audit: During the period November 12-16, 2001, a DoD team conducted a review of NWSS related equipment at Sergiev Posad and Moscow, Russia.

Equipment Accountability: The audit team noted discrepancies between quantities of cable located at Abramovo to support future Quick Fix installations and cable inventories provided by MOD. Subsequently, it was determined that the MOD database had not been updated with the latest shipping documentation. Once updated, DoD program management was satisfied that MOD had accurately accounted for the Quick Fix equipment.

Equipment Serviceability: The audit team reported that all equipment visually audited was fully serviceable and in proper working condition.

Equipment Usage: Based on visual inspection and document review, the DoD team reported that the equipment was adequately stored and is awaiting future use for its intended purpose once it is sent for installation at nuclear weapons storage sites.

Limited Audit Summary: The team reported that cooperation and support from the Russian MOD was excellent and enabled work to be completed quickly. Although there were discrepancies noted in the audit report, MOD ultimately satisfied DoD requirements for accounting accuracy.

Program Management: DoD management and technical teams made seven trips. During multiple visits DoD representatives discussed protocols to allow limited access to weapons storage sites in order to display work accomplished in the installation of modern physical protection systems guarding MOD nuclear weapons at storage sites. Discussions also included the need to develop an integrated plan to schedule technical visits to MOD nuclear weapons storage sites to conduct security installation work. DoD teams also inspected Quick Fix equipment stored at Abramovo. Project management also held discussions regarding contract actions to provide safety and support equipment. Additionally, meetings were held with the technical contractor and MOD to discuss system architecture of the Command and Control System for site security upgrades.

Finally, the CLS contractor made 12 site visits in support of this project and performed transfer of custody services for DoD-provided equipment. Based on the feedback from the CLS contractor, DoD management, and the A&E teams, all observed DoD-provided assistance was being used for its intended purpose.

2.2 NUCLEAR WEAPONS TRANSPORTATION SECURITY (NWTS) - RUSSIA. In accordance with the NWTS Implementing Agreement, DoD is providing equipment, materials, services, and training to Russia's MOD to enhance the safety and security of nuclear weapons in transit and to prevent their proliferation. CTR projects supporting this agreement include: Railcar Maintenance and Procurement; Nuclear Weapons Transportation; Supercontainers; Emergency Support Equipment; and Transportation Safety Enhancements. In addition, equipment originally provided to MOD under implementing agreements with MinAtom for Railcar Enhancements and Emergency Response is now accounted for under this project.

The NWTS Implementing Agreement does not address alternative A&E methods, although much of the equipment provided under this agreement is also located at sensitive MOD locations. This equipment is by nature transportable, and therefore the equipment is shipped to non-sensitive locations where DoD conducts A&Es. In addition, the DoD/MOD unclassified database under development to track equipment provided under the NWSS program will also be used to assist the management and accountability of equipment in the NWTS program.

General CTR Logistics Support (CLS): The CLS contractor and its subcontractors made seven trips to project sites and provided transfer of custody and letter of verification support for DoD-provided equipment.

Program Management: DoD management and technical teams made two trips in support of the entire NWTS program. On the trips, DoD held discussions concerning site access in which MOD assured DoD of a commitment to cooperate.

2.2.1 *Nuclear Weapons Transportation*. This project contracts for transport of nuclear weapons from deployed sites to secure storage and dismantlement facilities. For accounting and effectiveness purposes, DoD closely monitors the services through the use of facilitating agents who provide independent oversight of the transportation movements and verify transportation invoices prior to payment to assure appropriate rates are paid. A U.S.-based company is the overall integrating agent for nuclear weapons transportation in Russia. Weapons movements are expected to remain at 72 train shipments per year from FY 2002 through FY 2009 and beyond.

Locations: The weapons movement services provided under this effort are conducted throughout Russia, but are managed centrally from Moscow.

Program Management: DoD management and technical teams made two site visits and held numerous discussions with MOD regarding this project. Technical discussions were held in Moscow concerning the status of nuclear weapons transportation projects. Topics of discussion included projections of expected weapon shipments, tariff rate increases, and the need for additional facilitating agents, all of which impact cost estimating and project planning.

To meet minimum contract acceptance criteria for payment of service, the Provision of Services to Facilitate the Transportation of Nuclear Weapons Implementing Arrangement provides for facilitating agents who conduct independent oversight of the transportation movements and verify transportation invoices prior to payment. Based on the reports of the facilitating agents and DoD teams, all observed DoD-provided assistance was being used for its intended purpose.

2.2.2 *Supercontainers (Completed Project) and Emergency Support Equipment (ESE) (Completed Project)*. These projects assist Russia to safely and securely transport nuclear warheads from operational sites to secure storage and dismantlement facilities. The supercontainers provide ballistic, thermal, and abnormal event protection to warheads during transport. The ESE equipment augments Russia's capability to respond and effectively mitigate the consequences of a nuclear weapons transportation accident.

Locations: Supercontainers are distributed throughout Russia within five operational regions of responsibility. The ESE equipment is contained in five identical transport modules distributed to five regional emergency response centers throughout Russia. Both supercontainers and ESE are centrally managed by the 12th Main Directorate.

A&E: During the period March 11-14, 2002, a DoD team conducted a review of training materials and equipment at MOD sites in Sergiev Posad, Russia.

Equipment Accountability: The A&E team physically inspected a sample of 15 of 150 supercontainers and 3 of 15 Emergency Support Module containers. Additionally, the team observed spare part and tool kits, 150 supercontainer lashing chains, 2 supercontainer Abnormal Event Lifting Beams, and a variety of other

equipment initially provided to MinAtom and subsequently transferred to MOD. The team accounted for all equipment requested in the 30-day notification to MOD.

Equipment Serviceability: The team reported that all equipment visually audited was fully serviceable and in good working order and the facilities holding the equipment appeared to be dry and secure.

Equipment Usage: MOD officials provided required documentation certifying that all equipment was being used for its intended purpose.

A&E Summary: Accountability, documentation, usage, and serviceability of all equipment observed were in excellent order. The DoD team reported MOD personnel were fully prepared, extremely professional, and cooperative on the visit.

Program Management: As these are completed projects, no program management visits were conducted.

2.2.3 *Railcar Maintenance and Procurement, and Security Enhancements for Railcars (Completed Project).* These projects provide maintenance and Russian government-required certification services including life extension for MOD's nuclear weapons transportation railcars. MOD's 12th Main Directorate maintains a fleet of Ministry of Railways (MOR)-certified nuclear weapons railcars to transport warheads.

This project builds on efforts completed in 1996 under the Railcar Enhancements Implementing Agreement with MinAtom, which provided and installed security enhancement kits for 100 unheated nuclear weapons cargo railcars and 15 guard railcars. Initial railcar maintenance assistance included MOR certification of these 100 unheated cargo railcars and 15 guard railcars as well as 100 aging cold weather (heated) cargo railcars while they were in service.

Locations: Certification maintenance is performed at the Tver Railcar Factory. The railcars are distributed to garrisons associated with nuclear weapons storage sites and are in use throughout Russia.

A&E: From September 30 to October 4, 2002, a DoD team conducted a review of service maintenance documentation and equipment at MOD sites in Tver and Torzhok, Russia.

Equipment Accountability: In the 30-day notification cable for this A&E, DoD provided a list of 20 cargo railcars and asked MOD to present at least 10 for inspection. DoD also requested that MOD make available for inspection all 15 guard railcars upgraded with CTR assistance. However, MOD only provided eight cargo railcars and six guard railcars for inspection. MOD stated that the remaining nine guard railcars could not be provided for inspection due to their distant locations and poor condition. No explanation was given as to why an additional two cargo railcars were not provided for inspection.

The A&E team requested an opportunity to take external photographs of the cargo and guard railcars because DoD provided external maintenance for the railcars. In addition, two railcars had been involved in accidents and the photographs were necessary to show their condition. However, MOD personnel would only permit the A&E team to photograph the interior of the railcars.

During the A&E, usage and service maintenance documentation for all eight of the observed cargo railcars and five of the observed guard railcars were made available for review in the form of individual logbooks. MOD was unable to locate the logbook for the sixth observed guard railcar. Additionally, the DoD team was provided the training program documentation for individual operator and instructor VINDICATOR alarm system training. All personnel observed during the operational testing of the VINDICATOR alarm system were thoroughly familiar with the equipment and various methods of connecting and monitoring the sensor systems.

Equipment Serviceability: The audit team reported that all eight observed cargo railcars were due Depot Level Maintenance. The six observed guard railcars have been condemned by MOR, and no further maintenance will be conducted on them prior to their elimination. The A&E team observed testing that showed the VINDICATOR alarm system on one guard railcar was successfully initialized and was able to establish a communications link with the eight attached cargo railcars. The VINDICATOR systems on the remaining five guard railcars were physically observed to be in pristine condition, but they were not tested for functionality due to the guard railcars' state of disrepair.

Equipment Usage: The DoD team reviewed logbooks for 13 of 14 observed railcars and concluded that they did not indicate use other than for intended purposes.

A&E Summary: Accountability, documentation, usage, training, and serviceability of all equipment observed were in good order, except as noted above. DoD is concerned about the apparent lack of use of the VINDICATOR alarm systems. Unfortunately, MOD was unable to provide the remaining cargo and guard railcars for inspection by the A&E team. Consequently, DoD was unable to complete the planned objective. Subsequently, in January 2003 MOD positioned the uninspected railcars in Sergiev Posad. They are scheduled for inspection by a DoD technical team in April 2003. Based on the results of the A&E and reports from program management and technical teams, observed assistance was not used for other than its intended purpose.

Program Management: DoD management and technical teams made five trips and held technical discussions related to proposals for procurement of new nuclear weapons cargo railcars, elimination of old railcars, and maintenance. Conversations included guard railcar destruction requirements including the removal of VINDICATOR alarm systems for use in new guard railcars. The teams also discussed the issue of whether to provide service life extensions for existing railcars versus purchasing new railcars. Maintaining only enough railcars to support the number of shipments necessary to complete dismantlement efforts is the key program management factor guiding these discussions.

During technical discussions, MOD reported that all 15 guard railcars that had received security enhancement upgrades by DoD almost 10 years ago were now all at least 28 years old. They are beyond their service lives and are no longer being used. Therefore, MOD requested that DoD provide 15 new guard railcars. This request is under consideration by DoD. A final decision will be reached pending results of a technical team inspection planned for FY 2003.

2.2.4 *Transportation Safety Enhancements (TSE)*. This project supports the program objectives: to enhance NWTS; to enhance emergency response capabilities; to support emergency response mitigation operations; to enhance the command, control, and analysis of emergency situations; and to augment the access and recovery operations associated with accident mitigation. Equipment, shipping, logistics and technical support may be provided where warranted to support these objectives.

Locations: St. Petersburg, Sergiev Posad, and throughout Russia.

Program Management: DoD management and technical teams made five trips. During October 2001 a DoD team traveled to Saint Petersburg to observe a demonstration of the first production Pomoshnik and related equipment. The vehicle and equipment functioned properly and the DoD team observed that the MOD personnel were well trained and highly motivated. Additionally, during this trip, assistance for additional Pomoshniks was discussed. The project manager remarked that this would require a statement of intended use, proposed locations and how they would improve response time to accidents before DoD would consider the request.

During August 2002 DoD representatives traveled to the Komsomolsk District in Russia to observe the use of DoD-provided equipment during Russia's annual Emergency Response exercise and recorded serial numbers of the equipment used. Program management reported that these were highly successful exercises and that all stated objectives were met. Following the exercises, discussions commenced regarding additional assistance and the future direction of this project. Additionally, the CLS contractor and its subcontractors made seven trips to project sites and provided transfer of custody and letter of verification support for DoD-provided equipment. Based on feedback from the CLS contractor and DoD management, all observed DoD-provided assistance was being used for its intended purpose.

2.3 FISSILE MATERIAL STORAGE FACILITY (FMSF) - RUSSIA. This project assists Russia by providing centralized, safe, secure, and ecologically sound storage for fissile material removed from nuclear weapons. This project also enhances material control and accounting, transparency, and safeguarding of the fissile material. The provision of technical expertise, materials, and management for the design and construction of the Mayak FMSF ensures the rate of weapons dismantlement is not slowed by a shortage of secure fissile material storage space, and aids non-proliferation efforts by assuring fissile material is securely accounted for and protected.

Location: Mayak.

Program Management: DoD teams made eight trips, during which the Program Manager required a justification memo explaining how each piece of equipment retained by the Russian contractor would be directed toward construction of the facility. Despite receiving this justification, DoD remained concerned that a portion of the DoD-provided construction equipment was not located at the project site, and that it may be being used for purposes other than FMSF construction. MinAtom agreed to ultimately return all DoD-provided construction equipment to the U.S.

Many discussions were held concerning DoD access to the Dalnaya Dacha project site management office and construction site. Per the agreement signed in 1997, DoD is restricted to no more than ten persons in these areas. These restrictions are reportedly affecting project execution and delaying the project by slowing the rate of equipment installation, testing, and training. The 10 person limit also is reported to adversely impact program management and oversight, management of resources, and resolution of problems. The U.S. is negotiating with Russia to increase the personnel limit.

Each trip included discussions concerning the pace of construction. DoD management emphasized the need for the Russian contractors to increase their efforts to achieve target completion dates for the facility construction, start-up training, and commissioning. The program manager sought to increase the Russian contractor's progress by offering incentives to complete the project on schedule. However, these incentives did not attain the desired results.

The teams conducted many site visits to observe construction at the facility. Additionally, discussions were held concerning the value added tax (VAT). According to the U.S.-Russia CTR Umbrella Agreement, CTR contractors are exempt from the payment of VAT. However, the South Urals Construction Company (SUC) paid VAT to equipment vendors rather than requiring the equipment vendors to submit VAT exemption certificates for equipment purchases. As these costs cannot be charged to, and will not be paid by, the U.S. government, this has resulted in a financial burden for SUC. In the previous year, MinAtom repaid SUC for similar VAT payments. MinAtom is working with the Ministry of Finance, MinEcon, and SUC to resolve this issue. It is reported that SUC has refused to order equipment necessary to complete the FMSF claiming financial hardship. The prime contractor BNI has advised SUC that failure to perform may result in termination of the SUC contract. BNI is now making VAT exempt equipment purchases for SUC.

OUSD(P) and MinAtom officials participated in transparency negotiations that included the frequency of monitoring visits and random sampling methodologies. DoD technical personnel reviewed the physical protection system design for the FMSF and reported that Russia was developing this system in a standard manner.

The U.S. Army Corps of Engineers and a U.S. integrating contractor provided on-site project management and monitored the daily construction activities. Detailed weekly and monthly reports were provided to DoD. Based on the results of program

management trips and feedback received from the on-site contractors, observed DoD-provided assistance was being used for its intended purpose.

2.4 FISSILE MATERIAL CONTAINERS (FMCS) – RUSSIA. In accordance with the FMC Implementing Agreement, this project provided FMCs for storage of fissile material removed from dismantled nuclear weapons during movement and periods of interim and long-term storage. Production of 32,696 FMCs has been completed, and MinAtom has received 26,456 FMCs to support loading of the Mayak FMSF. Russia declined acceptance of the final 6,240 FMCs stating that they were not required. These FMCs remain at the Defense Logistics Agency Distribution Depot in Barstow, California awaiting final disposition. The extra containers were produced when the FMSF project planned to build storage facilities capable of storing 50,000 FMCs.

Locations: Mayak, Russia and Barstow, California.

Program Management: The CLS contractor made five site visits in support of this program.

Unresolved Prior Year Concern: In FY 1999, MinAtom representatives refused to permit an A&E of FMCs. In FY 2000, an A&E of this project was again denied by MinAtom pending new approved Administrative Arrangements for the conduct of A&Es. Similarly, a request to conduct an A&E in FY 2001 was denied by Russia. MinAtom maintains that existing October 1995 administrative arrangements for the conduct of A&E activity must be revised because of provisions in the protocol extending the U.S.-Russia CTR Umbrella Agreement. DoD does not agree with this interpretation. However, DoD is focusing on robust monitoring of the material in the FMCs stored in the FMSF. DoD may seek to complete an implementing arrangement to A&E FMCs following negotiation of the Transparency Protocol/A&E Arrangement.

2.5 WEAPONS OF MASS DESTRUCTION INFRASTRUCTURE ELIMINATION (WMDIE) - KAZAKHSTAN

2.5.1 *Fissile and Radioactive Materials Proliferation Prevention*. Under the WMDIE Kazakhstan Implementing Agreement this project assists Kazakhstan to prevent proliferation of previously unsecured fissile and radioactive material.

Locations: Provided separately.

Program Management: DoD management and technical teams made four trips. In April, a DTRA team briefed the Defense Contract Management Agency (DCMA), which will provide on-location oversight. A second trip was completed to negotiate contracts with the National Nuclear Center of Kazakhstan for two proliferation prevention projects. Additionally, a follow-on trip visited project sites for the two newly negotiated contracts. This trip included a briefing to DCMA on contract deliverables to enhance their ability to perform in-country oversight effectively.

Finally, the CLS contractor conducted certification and transfer of custody services for DoD-provided equipment. During program management and CLS trips, all observed DoD-provided assistance was being used for its intended purpose.

2.6 CHEMICAL WEAPONS SITE SECURITY - RUSSIA. Pursuant to the Chemical Weapons Implementing Agreement, this project supports U.S. objectives for the nonproliferation of Russian chemical weapons and associated capabilities through identification and implementation of security system improvements at the Shchuch'ye and Kizner CW storage sites. The security improvements will help reduce the risk of unauthorized access to, theft of, and proliferation of Russian CW and associated technologies to terrorists or rogue states.

Locations: Kizner and the Planovy Chemical Weapons Storage Site (PCWSS) in Shchuch'ye.

Program Management: DoD management and technical teams made two trips. The teams conducted the scheduled 65 percent design review of security system upgrades at PCWSS and Kizner. Technical discussions were held on the objective suite of security equipment selected for the CW security projects. Also, a team traveled to the PCWSS to evaluate installation of immediate fix rapid deployed sensors. The DoD team reported the system was properly installed and working effectively.

Meetings were held with the integrating contractor to discuss 100 percent Physical Protection System design of the two chemical munitions storage facilities. The DoD teams reported that all observed DoD-provided assistance was being used for its intended purpose.

2.7 BW SECURITY ENHANCEMENTS. Through this project (now called Biosecurity and Biosafety), the BWPP Program assists the FSU biological research centers to enhance the security and safety associated with storage and handling of biological pathogens.

Locations: Novosibirsk and Obolensk.

Program Management: DoD management and technical teams made nine trips. The teams performed technical and project management in-progress reviews for ongoing biosecurity and biosafety projects at the State Research Center for Applied Microbiology (SRCAM), and Vector. During these visits the team inspected equipment provided through ISTC under current BWPP projects. Also, the BWPP team worked with SRCAM and Vector to develop biosecurity and biosafety projects as well as Phase 2 biosecurity project proposals and work plans for Vector.

Additional trips visited the All Russian Scientific Research Institute of Phytopathology in Golitsino, Russia and the Pokrov Biologics Plant to finalize ISTC project agreements for long-term development plans and proposals for biosecurity/biosafety projects. During a site visit to the Pokrov Biologics Plant, the DoD team determined that the current security system was in a state of disrepair. This was reported to both plant managers and DoD project management for action.

DoD provides on-site U.S. contractors who visit project sites about ten days per month. They assist project management with environmental analysis, design, safety procedures, implementation assistance, and project support. These contractors provide bi-weekly status reports and monthly cost and performance reports.

Use of Assistance Concern: The CTR Project Manager voiced significant concerns with the process ISTC uses to administer projects. To independently verify these concerns, DoD funded a review of ISTC processes by the KPMG public accounting firm, which found roles within the ISTC were not clearly defined and no real structure existed to evaluate procedures and standardize processes. KPMG's December 9, 2001 report makes 26 key recommendations; 17 of which were flagged as high priority. However, DoD reported that ISTC management's initial reaction was to ignore the recommendations.

During March 2002, the CTR Project Manager along with a representative from OUSD(P) met with DOS officials who were responsible for ISTC management. This topic was then discussed at the April 2002 ISTC Board of Governors meeting. The Board of Governors directed the ISTC Executive Director to implement a number of KPMG recommendations. At the end of FY 2002, ISTC Executive Management reported that ISTC was reorganizing its management and operations structure to address the concerns raised by the KPMG report and by DoD officials. DoD will continue to monitor this issue.

Based on the program management trip reports and on-site contractors, except for the administrative concerns noted above, this project was proceeding according to plan and all observed DoD-provided assistance was being used for its intended purpose.

2.8 BIOLOGICAL WEAPONS SECURITY AND TRANSPARENCY. In accordance with the WMDIE-Kazakhstan Implementing Agreement, this project facilitated biological material protection, control, and accountability. The project characterized and protected strain collections of microorganisms and prevented the proliferation of biological material that could contribute to the proliferation of WMD at the SRAI and the KIRPC. This project is complete. Follow-on projects will fall under the Biosecurity and Biosafety project.

Locations: Otar and Almaty.

Program Management: A DoD management and technical team made one trip to support this project. The DoD team held meetings with Otar personnel and reported that excellent security practices were observed at Otar. Also, DoD management conducted a review of lab practices in Almaty. Management and technical teams reported all observed DoD-provided assistance was used for its intended purpose.

2.9 EMERGENCY RESPONSE.

2.9.1 *Emergency Response – Russia*. In accordance with the Emergency Response Implementing Agreement for Russia, this project assists Russia with the safe and secure transport of nuclear warheads to secure storage and dismantlement facilities.

Also, ICBM/SLBM elimination objectives are facilitated by addressing shortfalls in Russian capabilities to respond to a nuclear weapons transportation accident.

Locations: Moscow, Sarov, Snezhinsk, and Mytischi.

Program Management: Project support has been suspended pending MinAtom signature of an amendment and extension of the implementing agreement including an A&E arrangement. Thus, no program management actions were taken in FY 2002.

2.9.2 *Emergency Response – Kazakhstan (Completed Project*). In accordance with the Emergency Response Implementing Agreement for Kazakhstan, this project provided equipment and training to prepare emergency response teams to respond to potential situations related to the transport of nuclear weapons destined for destruction in Russia. All nuclear weapons were removed to Russia in 1995, and all SS-18 ICBM delivery systems have been transported to Russia or destroyed.

Locations: Arms Reduction Control and Inspection Implementation Center, Epidemiological Medical Center for the Armed Forces, the Military Academy of the Armed Forces in Almaty, Chemical Defense Unit at Kapchagai, and the National Nuclear Center at Kurchatov.

Program Management: As this is a completed project, no program management visits were made.

2.10 ELIMINATION OF WEAPONS GRADE PLUTONIUM PRODUCTION - RUSSIA. This program, as originally planned, would have eliminated weapons-grade plutonium production in Russia by converting the last three plutonium production reactors located at Zheleznogorsk and Seversk to a non-weapons-grade-plutonium-producing core design. This program has since been revised to allow shut-down of the three reactors by providing fossil fuel replacement power and has been transferred to DOE for management, oversight, and future funding.

Locations: Moscow, Nizhny Novgorad, Zheleznogorsk, and Seversk.

Program Management: DoD management and technical teams conducted two trips during FY 2002 to discuss the progress of this project and review deliverables. Additionally, a review was performed of the baseline study contract.

Objective 3: Increase transparency and encourage higher standards of conduct

3.1 PERSONNEL RELIABILITY AND SAFETY. This project under the NWSS Implementing Agreement – Russia, enhances MOD's capability for drug and alcohol screening, and evaluation of personnel who have access to nuclear weapons. It also improves the safety of those personnel by providing dosimeters for radiation and radon detection.

Location: Personnel Reliability Program (PRP) Fixed Lab at Sergiev Posad, Russia. Other equipment distributed, and in use, throughout Russia.

A&E: During the period November 12-16, 2001, a DoD team conducted a review of NWSS PRP related equipment at Sergiev Posad and Moscow, Russia.

Equipment Accountability: The audit team accounted for all equipment provided for the PRP project at the SATC location by visual inspection of the serial number or by document review.

Equipment Serviceability: The audit team did not report any concerns related to equipment serviceability.

Equipment Usage: The audit team did not report any concerns related to equipment usage.

A&E Summary: The audit team accounted for all PRP equipment at the SATC by visual inspection. Accountability, documentation, usage, and serviceability of all equipment were in excellent order.

Program Management: DoD management and technical teams made five trips. These visits included negotiations concerning the final procurement of radon devices and dosimeters. Additional discussions were held to plan training sessions to teach technicians how to properly use these devices. During three subsequent trips, DoD technical representatives monitored training sessions for PRP fixed lab equipment located at the SATC. After these sessions, DoD representatives met with the trainees to obtain insight into the adequacy of the sessions and received very favorable feedback. A DoD team noted that the equipment utilized during the training sessions was functioning as designed and adequately supported the training.

Finally, the CLS contractor made 14 visits to project sites, performed 7 maintenance actions on CTR equipment, and conducted certification and transfer of custody services for DoD-provided equipment. All DoD-provided assistance observed by the CLS contractor and A&E teams was being used for its intended purpose.

3.2 COOPERATIVE BIOLOGICAL RESEARCH (FSU). The BWPP Cooperative Biological Research Projects support U.S. objectives to prevent the proliferation of the FSU BW scientific and technology expertise to countries of concern and terrorist groups, and to increase transparency at FSU BW facilities. The research is focused on enhancing preparedness against biological threats.

The BWPP Program has no implementing agreement with Russia. The CTR Program relies on the Memorandum of Agreement (MOA) between the United States and the ISTC to implement projects. The ISTC MOA does not allow DoD to contract directly with the Russian institutes that perform the majority of the BW work. Project counterparts are hired via three-party project agreements. The three parties are ISTC, DoD, and the performing institute. This creates an indirect relationship between CTR program management and the performing institutes, as all directives must be relayed through the ISTC senior project manager. It has the advantage of distributing these administrative costs to several countries. Concluding an implementing agreement with an appropriate Russia executive agency would permit the use of integrating contractors, creating a more direct, but more costly, operating relationship. DoD will continue to pursue a BW implementing agreement with Russia.

Locations: Novosibirsk (Vector), Obolensk (SRCAM), Moscow, Kazan, Kirov, Pushchino, Pokrov, and Serpukhov.

Program Management: DoD management and technical teams made 14 trips. The program manager attended a Defense Advanced Research Projects Agency (DARPA) Russian Project Review Meeting to meet with principal investigators and attended presentations to gain insight into each DARPA project. This review was based on the possibility that the DARPA projects would be transferred under the CTR Cooperative Biological Research effort. A team traveled to the All-Russian Research Veterinarian Institute in Kazan for technical discussions on two projects concerning Toxicology and Infectious Diseases. Discussions were held at numerous sites to review requests for assistance to institutes, equipment needs, and project development support. DoD teams also discussed agreements, addenda, and project status for several ISTC projects at various institutes.

During trips to SRCAM and Vector, a DoD team identified materials and equipment purchased through ISTC under current projects. The team reported that all observed DoD-provided equipment was in excellent condition and was being used for its intended purpose. DoD teams conducted reviews of ongoing programs at the Anti-Plague Institute in Almaty, Kazakhstan, the Scientific Research Agriculture Institute at Otar, Kazakhstan, and both the Institute of Virology and the Center for Prophylaxis of Quarantined and Most Hazardous Infections in Tashkent, Uzbekistan.

DoD teams also toured SRCAM to better understand the workings of a FSU BW research and production center. At this facility the DoD team conducted the first session of a biosafety training course for FSU attendees. Finally, the DoD team participated in Senator Lugar's congressional delegation visits to BW facilities in May and August 2002 including a tour of the smallpox lab at Vector.

Objective 4: Support defense and military cooperation with the objective of preventing proliferation.

4.1 GOVERNMENT-TO-GOVERNMENT COMMUNICATIONS LINK (GGCL) - UKRAINE (COMPLETED PROJECT). In accordance with the GGCL Implementing Agreement, this project provides a communication link between Ukraine's MOD and the USG to support START and Intermediate Nuclear Forces (INF) Treaty arms reduction activities.

Location: Verification Center in Kiev.

Program Management: This is a completed project, and no program management trips were conducted. However, receipt of required START and INF reports throughout the year confirmed that DoD-provided equipment was being used for its intended purpose.

4.2 GOVERNMENT-TO-GOVERNMENT COMMUNICATIONS LINK (GGCL) - KAZAKHSTAN (COMPLETED PROJECT). In accordance with the GGCL Implementing Agreement, DoD provided a communication link between MOD Kazakhstan and the USG to support START and INF Treaty arms reduction activities.

Location: Almaty.

Program Management: This is a completed project; however, receipt of required START and INF reports throughout the year confirm that DoD-provided equipment was being used for its intended purpose.

4.3 DEFENSE AND MILITARY CONTACTS - FSU. In accordance with the Defense and Military Contacts instruments identified at Appendix A, this program responds to DoD's goal to stem proliferation of WMD, support implementation of the new strategic framework (Russia), enhance the U.S.-Russia partnership, and increase U.S. access by strengthening defense partnerships (non-Russian FSU states). In support of counter proliferation and demilitarization objectives, this program encourages and assists the FSU states in downsizing their defense establishments and helping their militaries to better understand Western society, including civil-military relations.

CTR sponsored 423 events during the reporting period. All assistance provided was in the form of travel and non-material assistance. Foreign travel expenses were paid by the sponsoring U.S. organization directly to the airline, hotel, etc. Prior to inviting a foreign party to an exchange or other event, the sponsoring organization submits a request for approval to the Joint Staff and OSD, who review requests to ensure they meet program guidelines. Through this process, and because U.S. funds are never transferred to another country, the Defense and Military Contacts program determined that CTR-provided funds were accounted for and used as intended.

4.4 DEFENSE CONVERSION. In accordance with the Defense Conversion Implementing Agreements, projects supporting this program are designed to facilitate the

conversion of the industrial and scientific infrastructure that supported WMD and WMD-component production to non-military commercial activities. DoD recognizes the statutory prohibition placed on these programs and is closing out these projects utilizing funds appropriated prior to the prohibition.

4.4.1 *Defense Conversion – Russia*. Under the Defense Conversion Implementing Agreement for Russia, projects supporting this program are designed to facilitate the conversion of the Russian industrial and scientific infrastructure that supported WMD and WMD-component production to non-military commercial activities.

Program Management: None.

4.4.1.1 *Housing - Russia*. This program provides support to accelerate the demobilization of WMD officers by providing housing production technologies and forming joint ventures between former Russian WMD production plants to facilitate their transition to non-military civilian and commercial activities.

Location: Moscow.

Program Management: A team inspected faucet, roofing, window, and door production equipment installed at the Kompozit plant. The team reported that all observed DoD-provided equipment appeared to be in excellent condition and was being used for its intended purpose.

4.4.1.2 *Defense Industry Conversion - Russia*. This project provides support to facilitate the conversion of Russian industrial infrastructure that supported WMD and WMD-component production to non-military commercial activities.

Locations: Moscow and St. Petersburg.

Program Management: None.

4.4.2 *Defense Conversion – Ukraine*. Under the Defense Conversion Implementing Agreement for Ukraine, DoD is providing assistance in the conversion of its defense industry and reorientation of military technologies and capabilities into civilian activities. The agreement also provides housing for demobilized SRF officers and their families.

Program Management: DoD management and technical teams made one trip in support of the Defense Conversion program in Ukraine. DoD teams met with Ministry of Industrial Policy representatives to discuss specific resource requirements for a die casting plant that will produce materials for cars to be marketed worldwide. Additionally, an A&E was performed of the housing provided to demobilized SRF officers. Finally, the CLS contractor made one site visit to perform Letter of Verification and Transfer of Custody of Defense Conversion equipment. Program management and A&E teams reported that all observed DoD-provided assistance was being used for its intended purpose.

4.4.2.1 *Defense Industry Conversion - Ukraine*. This project provides support to facilitate the conversion of Ukrainian industrial infrastructure that supported WMD and WMD-component production to non-military commercial activities.

Locations: Kiev and Kharkiv.

Program Management: None.

4.4.2.2 *Housing for Demobilized SS-19 SRF - Ukraine (Completed Project).* In accordance with the SNAE Implementing Agreement, the objective of this project was to provide housing for the officers of 13 demobilized SRF Regiments.

Locations: Pervomaysk and Khmelnitskiy.

A&E: During the period 1994 to 1997 DoD constructed 261 houses in Pervomaysk and 605 apartments in Khmelnitskiy for occupation by demilitarized officers of the 43rd Rocket Army. During a March 12-20, 1999 A&E of this housing, it was noted that a portion of the provided housing units were inhabited by active-duty military officers assisting with dismantlement efforts.

This issue was discussed in correspondence between Ukraine and DoD officials. It was agreed that if Ukraine built or purchased additional housing units for habitation by demilitarized officers, these units could act as substitutes for the CTR-provided housing. During the period July 15-19, 2002, a DoD team conducted a review of the CTR-provided housing located in Pervomaysk and Khmelnitskiy, and Ukraine provided housing in Pervomaysk, Khmelnitskiy, and Vinnytsya, to determine whether these units were occupied by demilitarized Ukraine officers.

Housing Accountability: The A&E team reviewed occupancy logs and other records for the 866 units constructed with CTR funding and 368 provided by Ukraine. Additionally, the team toured the housing units and interviewed occupants to verify the accuracy of the occupancy logs including military discharge dates of the owners.

Ukraine representatives were cooperative and provided sufficient documentation for the team to determine which units were occupied by officers who were demilitarized or were scheduled to be retired in the near term. The A&E team prepared an analysis stating 933 of the housing units provided by CTR funds or Ukraine would in the near term house demilitarized Ukrainian officers. Since this total exceeds the 866 housing units originally provided, DoD considers the housing issue to be closed.

A&E Summary: Ukraine has satisfactorily resolved the housing issue noted in previous editions of this report since FY 1999. Accountability and condition of the housing units was in good order

Program Management: This project is completed; no management activity occurred.

4.4.3 *Defense Conversion – Kazakhstan*. This program was established to facilitate conversion of the industrial and scientific infrastructure that supported WMD

production to non-military commercial purposes. DoD is providing assistance to enhance opportunities for civilian economic growth to five former military–industrial communities through a community-based economic revitalization program.

Locations: Astana, Almaty, Alatau Village, Aktau, Kurchatov, and Pavlodar.

Program Management: None.

4.5 EXPORT CONTROL (TRANSFERRED TO DOS). In accordance with the Export Control Implementing Agreements, these programs provided assistance to strengthen FSU states' export control efforts, enabling them to more effectively control the export of materials and technology to aid in the prevention of proliferation of WMD and related technologies. Responsibility for these programs was transitioned to DOS in October 1997 with the exception of the right to perform A&Es, which remains with DoD.

4.5.1 *Export Control – Ukraine*. In accordance with the Export Control Implementing Agreement for Ukraine, DoD provided assistance related to logistical support of export control systems to prevent the proliferation of WMD.

Locations: MOD Arms Control and Military and Technical Cooperation Directorate, Kiev, Kharkov, Donetsk, Pletenovka, Kup, Lvov, Ilichevsk, Rozdilna, Kuchurgan, Nikaleyev, Kherson, Odessa, Tisa, Chop, Uzhgorod, Krakovets, and Motis'ka.

Program Management: This is a project whose oversight resides with DOS.

4.5.2 *Export Control – Kazakhstan*. In accordance with the Export Control Implementing Agreement for Kazakhstan, DoD provided assistance related to logistical support of export control systems to prevent the proliferation of WMD.

Locations: Almaty, Aktau, and Astana.

Program Management: This is a project whose oversight resides with DOS.

4.5.3 *Export Control – Georgia*. In accordance with the Export Control Implementing Agreement for Georgia, DoD provided assistance related to the establishment of export control systems to prevent the proliferation of WMD.

Locations: Two patrol boats were purchased and provided to the Georgia Border Guards to patrol the Black Sea coast, particularly the major ports of Batumi and Poti.

Program Management: This is a project whose oversight resides with DOS.

4.6 SCIENCE AND TECHNOLOGY CENTERS (STCS). DOS oversees all STC activities, including those activities supported by DoD CTR funding. Audits of STC activities are conducted in accordance with applicable agreements and with generally accepted auditing standards; *Government Auditing Standards*, issued by the Comptroller General of the United States; and Office of Management and Budget Circular A-133, *Audits of Institutions of Higher Education and Other Nonprofit Institutions*. The

auditing of the financial aspects of the STCs, both internally and for specific projects, and the monitoring of technical progress of projects funded by the STCs are key management activities.

The public accounting firm of Deloitte Touche Tohmatsu reported no significant negative findings in their audit report of the ISTC's comparative financial statements for calendar years 2000 and 1999. Additionally, the public accounting firm of Lubbock Fine audited the Financial Statements of the Science and Technology Center in Ukraine for the year ended December 31, 2000 and reported that they were free from material misstatement. Also, ISTC project managers provide quarterly project updates, and DTRA managers meet with the ISTC and regularly visit project sites.

DoD provides an on-site Partner Coordinator and Senior Project Manager to facilitate CTR Partner Projects, visit with Russian institutes, and interact with Russian scientists. He acts as a point of contact for ISTC associated projects, travel, official U.S. visits, and facilitates CTR special and time sensitive requests. Status updates for individual tasks were provided as necessary. Project and proposal reviews were performed as required by ISTC, with comments provided to ISTC and DoD.

Monitoring of the STCs is conducted through several mechanisms. The DOS sits on the Boards of Governors and votes the U.S. position on project funding based on interagency review of proposed projects. The Board of Governors meetings are held quarterly for the ISTC and semi-annually for the STCU. During project execution, the ISTC and STCU conduct oversight activities to ensure that funds are used as approved by their Boards of Governors. Each active ISTC/STCU project receives an on-site monitoring visit at least once a year. In addition, each active project is subject to ISTC/STCU audit. The audit reports were documented in the ISTC and STCU annual reports. Copies of these reports were forwarded to DoD for review.

4.7 CIVILIAN RESEARCH AND DEVELOPMENT FOUNDATION (CRDF). The CRDF is a non-governmental, nonprofit foundation established by the National Science Foundation, and currently supported by government and private funds, including DoD CTR contracts. The CRDF provides an alternative to the proliferation of WMD expertise, advances defense conversion, and assists with the development of market economies through joint projects with commercial potential. The CRDF is not managed by DoD and its activities are not governed by a CTR implementing agreement. Therefore, it is not subject to the A&E process. Accounting for CTR assistance was awarded to PriceWaterhouseCoopers LLP, which audits the financial status of this project on a calendar year schedule. The audit is conducted in accordance with generally accepted auditing standards; *Government Auditing Standards*, issued by the Comptroller General of the United States; and Office of Management and Budget Circular A-133, *Audits of Institutions of Higher Education and Other Nonprofit Institutions*. Audit reports are forwarded to DoD for review.

4.8 DEFENSE ENTERPRISE FUND (DEF). In accordance with the CTR Act of 1993, Section 1204, the DEF is a privately managed venture capital fund formed to promote the conversion of FSU defense-related industries into non-military commercial

businesses. The DEF makes investments in carefully chosen joint ventures between the enterprises and Western partners. This activity is neither managed by DoD nor subject to A&Es applicable to other CTR activities. Accountability for assistance provided through the DEF is provided through the ongoing business relationships established by the DEF, annual financial audits of the DEF by an independent auditor, and regular visits and reviews by the CTR program manager. Ernst & Young LLP, independent certified public accountants, audit the DEF's financial statements. The audited financial statements for the years ended September 30, 2001 and 2000 were forwarded to DoD for review upon completion.

4.8.1 *Defense Enterprise Fund (Russia)*.

Program Management: A management team visited the DEF offices in Moscow and conducted programmatic discussions with MOD officials concerning the Defense Conversion projects.

4.8.2 *Defense Enterprise Fund (Kazakhstan*).

Program Management: None.

4.9 INITIATIVES FOR PROLIFERATION PREVENTION (IPP). The IPP program is a DOE initiative similar to the ISTC project. The IPP establishes collaborative efforts between DOE's National Labs and the National Institutes of the FSU to hire FSU weapons scientists, in this case, primarily nuclear scientists and technicians, to work on non-military research projects with high potential for commercialization. This activity is managed by DoE and is not subject to A&Es applicable to other CTR activities. However, DOE performs its own review of the IPP projects and provides financial and programmatic data in the Annual Report of DoD-Funded U.S./FSU collaborative research and development programs. DoD received the FY 2002 report.

CTR Accountability Actions by Project for FY 2002

The CTR Accountability Actions by Project for FY 2002 Grid in the following pages summarizes activities undertaken by the CTR Program to ensure assistance is utilized for its intended purpose and to determine whether the projects are implemented efficiently and effectively. This grid also highlights significant items of concern by project.

Key to CTR Accountability Actions by Project for FY 2002 Grid:

* Indicates CTR work is complete and no A&Es were performed on this Program/Project in FY 2002.

** A total of ten A&Es were performed in Russia during FY02; the nine listed in Russia plus the A&E shown under the ISTC FSU Program (4.8).

*** CTR Program Managers (PMs) travel to locations in FSU states to review all aspects of project status, provide support to OSD policy, review/accept deliverables, negotiate contracts, meet with Executive Agents & U.S. contractors, etc. PMs made 140 trips to the FSU during FY02. Many trips supported multiple objectives and have been counted against more than one Program/Project.

**** CLS site visits are made to perform corrective/preventive maintenance actions and/or provide Letter of Verification and Transfer of Custody Support.

***** A&Es, PM trips & CLS actions shown on the Program **(bolded)** rows were performed for the benefit of each Project under the given Program.

CTR ACCOUNTABILITY ACTIONS BY PROJECT FOR FY 2002

Section IV Paragraph	Program (Bold Text) / Project*****	A&E(s)		PM Trips ***	CLS		U.S. On-Site Support	Concerns
		Planned	Completed		Visits****	Maintenance Actions		
1.1	**Strategic Offensive Arms Elimination - Russia**			**4**				Absence of A&E administrative arrangements with MinAtom & RASA.
1.1.1	Heavy Bomber Elimination Equipment			1	2	21		
1.1.2	Emergency Response Support Equipment	1			5	32		
1.1.3	Solid Propellant Disposition Facility			3	1			Local politics jeopardized
1.1.4	Solid Propellant ICBM/SLBM and Mobile Launcher Elimination			16	4	3	Y	CTR site investment.
1.1.5	Liquid Propellant Disposition Systems	1		7	21	81	Y	RASA breached good faith obligation to provide Heptyl for conversion at $100m U.S. funded facility.
1.1.6	Liquid Propellant ICBM and Silo Elimination	1	1	4	13	220	Y	
1.1.7	SLBM Launcher Elimination/SSBN Dismantlement			9	25	335		
1.1.8	Low Level Radioactive Waste Volume Reduction							
1.1.9	Spent Naval Fuel Disposition			7				
1.1.10	Liquid Propellant SLBM Elimination			4	8	66		
2.1	**Nuclear Weapons Storage Security - Russia**	**1**	**1**	**10**				
2.1.1	Automated Inventory Control & Management System (AICMS)	1	1	5	3			
3.1	Personnel Reliability and Safety	1	1	5	14	7		
2.1.2	Guard Force Equipment and Training			3	5			
2.1.3	Nuclear Weapons Storage Site Support			3	24			
2.1.4	Security Assessment, Training, and Logistics			4				
2.1.5	Site Security Enhancements	1	1	7	12		Y	
2.2	**Nuclear Weapons Transportation Security - Russia**			**2**				
2.2.1	Nuclear Weapons Transportation							
2.2.2	Supercontainers	1	1					
2.2.2	Emergency Support Equipment	1	1	2				
2.2.3	Security Enhancements for Railcars/Railcar Maintenance and Procurement	1	1	5				DoD unable to complete A&E objectives due to non-compliance by MOD. Apparent non-use of CTR-provided security equipment.
2.2.4	Transportation Safety Enhancements			5	7			
*	**Fissile Material Storage Facility Design - Russia**							

Section IV Paragraph	Program (Bold Text) / Project*****	A&E(s)		PM Trips ***	CLS		U.S. On-Site Support	Concerns
		Planned	Completed		Visits****	Maintenance Actions		
2.3	**Fissile Material Storage Facility - Russia**	**1**		**8**			**Y**	Construction delays due to site access, construction contractor & tax issues.
2.4	**Fissile Material Containers - Russia**	**1**			**5**			
2.4	Fissile Material Containers - Mayak							
*	Technology Development and Demonstration							
2.10	**Elimination of Weapons Grade Plutonium Production - Russia**			**2**				
1.2	**Chemical Weapons Destruction - Russia**							
1.2.1	Chemical Weapons Destruction Facility				15		Y	
1.2.2	Chemical Agent Analytical Monitoring	1	1		19	9		
1.2.3	Chemical Weapons Production Facility Demilitarization			1				
2.6	Chemical Weapons Site Security			2				
2.9.1	**Emergency Response - Russia**	**1**						
*	**Material Control & Accounting - Russia**							
*	**Export Control - Russia**							
*	**Armored Blankets - Russia**							
*	**Defense & Military Contacts - Russia**							
4.4.1	**Defense Conversion - Russia**							
4.4.1	Defense Conversion - Russia							
4.4.1.1	Housing Conversion							
4.4.1.2	Industry Conversion							
4.6	**International Science & Technology Center - Russia**							
4.7	**Civilian Research & Development Foundation - Russia**							
*	**Arctic Nuclear Waste - Russia**							
4.8.1	**Defense Enterprise Fund - Russia**			**1**				
	Russia General				**3**			
	Russia Total**	**14**	**9**	**120**	**186**	**774**		
1.4	**Strategic Nuclear Arms Elimination - Ukraine**	**1**	**1**	**2**				
*	SS-19 Liquid Propellant Disposition							Elimination of SS-19s on hold as
1.4.1	SS-19 Neutralization and Dismantlement Facility			5				Ukraine asserts they will be sold
1.4.2	SS-24 Silo Elimination			6	121	3463	Y	to Russia.
1.4.3	SS-24 Missile Disassembly, Storage, and Elimination			11	60	690	Y	

Section IV Paragraph	Program (Bold Text) / Project*****	A&E(s)		PM Trips ***	CLS		U.S. On-Site Support	Concerns
		Planned	Completed		Visits****	Maintenance Actions		
1.4.4	SS-24 Propellant Disposition Facility			11	2	45	Y	Unsatisfactory cooperation from the Ukraine contractor. OUSD(P) monitoring closely to determine fate of project.
1.4.5	Bomber & ALCM Elimination			9	87	627	Y	
1.4.6	Non-Deployed ICBM Elimination Equipment							
1.4.7	Emergency Response Support Equipment							
4.4.2.2	SS-19 Housing	1	1					
1.4.8	SS-19 Silo Elimination							
4.1	**Government-to-Government Communications Link - Ukraine**							
1.5	**WMD Infrastructure Elimination - Ukraine**	**1**	**1**	**1**	**1**	**85**		
1.5.1	UFF/NWSA Elimination			2				
1.5.2	Liquid Missile Propellant and Storage Facility Elimination			4			Y	
1.5.3	National Nuclear Storage Site Elimination			2			Y	
1.5.4	Airbase Infrastructure Elimination			3				
*	**Emergency Response - Ukraine**	**1**	**1**					
*	**Multilateral Nuclear Safety Initiative - Ukraine**							
*	**Material Control & Accounting - Ukraine**							
4.5.1	**Export Control - Ukraine**							
4.3	**Defense & Military Contacts - Ukraine**							
4.4.2	**Defense Conversion - Ukraine**			**1**	**1**			
4.4.2.1	Industry Conversion							
4.6	**Science & Technology Center - Ukraine**							
	Ukraine General				**308**			
	Ukraine Total	**4**	**4**	**57**	**580**	**4910**		
1.6	**Strategic Offensive Arms Elimination - Kazakhstan**							
*	SS-18 Silo Elimination							
*	Strategic Bomber Elimination							
1.6.1	Unified Fill Facility/Nuclear Warhead Storage Elimination			1	2	7		
4.2	**Government-to-Government Communications Link - Kazakhstan**	**1**						
1.7/2.5	**Weapons of Mass Destruction Infrastructure Elimination - Kazakhstan**							
*	Nuclear Testing Infrastructure Elimination							
*	Project Sapphire							
1.7.1	BW Infrastructure Elimination - Kazakhstan			2			**Y**	

Section IV Paragraph	Program (Bold Text) / Project*****	A&E(s)		PM Trips ***	CLS		U.S. On-Site Support	Concerns
		Planned	Completed		Visits****	Maintenance Actions		
2.5.1	Fissile and Radioactive Materials Prevention of Proliferation			1				
2.8	BW Security & Transparency - Kazakhstan			4				
2.9.2	**Emergency Response - Kazakhstan**							
*	**Material Control & Accounting - Kazakhstan**							
4.5.2	**Export Control - Kazakhstan**	**1**						
4.3	**Defense & Military Contacts - Kazakhstan**							
4.4.3	**Defense Conversion - Kazakhstan**							
4.6	**Science & Technology Center - Kazakhstan**							
4.8.2	**Defense Enterprise Fund - Kazakhstan**							
	Kazakhstan Total	**2**	**0**	**8**	**2**	**7**		
1.8	**Nukus Chem. Research Institute Demilitarization - Uzbekistan**			**1**			**Y**	
	Uzbekistan Total	**0**	**0**	**1**	**0**	**0**		
4.5.3	**Export Control - Georgia**	**1**						
*	**Auburn Endeavor - Georgia**							
	Georgia Total	**1**	**0**	**0**	**0**	**0**		
*	**BW Proliferation Prevention - Former Soviet Union**							
3.2	Collaborative Biological Research (FSU)			**14**				
2.7	Security and Safety Enhancements (FSU)			**9**			**Y**	
1.3	BW Production Facility Dismantlement (FSU)			**10**			**Y**	
4.3	**Defense & Military Contacts - Former Soviet Union**							
4.3	**Defense & Military Contacts - Counter Proliferation**							
4.8	**Defense Enterprise Fund - Former Soviet Union**							
4.9	**Initiatives for Proliferation Prevention - Former Soviet Union**							
4.6	**International Science and Technology Center**	**1**	**1**				**Y**	Significant concerns with administration of ISTC Projects.
*	**Other Assessments/Administrative Costs**							
	Former Soviet Union - Former Soviet Union Programs Total	**1**	**1**	**33**	**0**	**0**		
	Grand Totals	**22**	**14**	**219**	**768**	**5691**		

Accounting Activities Planned for FY 2003

DoD utilizes a collaborative effort to develop the annual A&E schedule. A key component of the process is the completion of a General Accounting Office approved project risk analysis matrix for each CTR project. The matrix applies a defined set of weighted factors to CTR projects and yields an assessment of the "at risk" factor for assistance to be used for other than its intended purpose. It incorporates the frequency of CTR program/project manager visits, level of site access, project history, project maturity, U.S. contractor presence on site, and other confidence-building accountability methods. The risk assessment scores derived from this process, recommendations from Program and Executive Management, and input from the Intelligence Community and DoD teams were key elements in the development of a more effective A&E schedule for FY 2003.

A&Es: As part of the Accounting for CTR Program Assistance in the States of the FSU to ensure that CTR assistance provided through FY 2003 is fully accounted for, is used for its intended purposes, and that such assistance is being used efficiently and effectively, DoD plans to conduct 18 A&Es (see Figure IV-I) in Russia and Ukraine. Several will focus on completed programs and will serve to supplement approved program closeout procedures while ensuring that the umbrella agreement provisions on intended use of DoD-provided equipment and services are adhered to by the recipient states. The following is the FY 2003 planned A&E schedule:

Figure III-1 A&E Monthly Activity for FY 2003

FY 2003 A&E Summary

MONTH	FY 2003
October	0
November	0
December	2
January	1
February	0
March	6
April	0
May	1
June	1
July	2
August	1
September	4
TOTAL	18

FY 2003 A&E Summary by Country

Country	A&Es
Russia	16
Ukraine	2

Update of Prior Year Concern: The FY 2003 CTR Annual Report referenced a DoD Inspector General report dated November 6, 2000 that made recommendations for revenues generated from the sale of scrap materials from CTR Projects. During FY 2002, the CTR Program intended to incorporate scrap revenue monitoring procedures as part of the SOAE JRIP.

However, shortly after the end of FY 2002, it was decided that scrap revenue should be included as part of the new administrative arrangements for SOAE A&Es with RASA. At the time of publication, the A&E arrangements were still being discussed with RASA. Also, DoD proposes to explore contractual mechanisms as a means to capture revenue realized from the sale of conversion by-products in Ukraine and to ensure proceeds are used to support CTR efforts in Ukraine.

Accounting Conclusions

During FY 2002, DoD performed 14 A&Es to determine whether equipment and other resources provided are adequately secured, operated properly, and used for their intended purposes. The results of these reviews are detailed by project in the Accounting By Program Objectives section of this report. DoD was initially able to audit only 8 of 10 cargo railcars and 6 of 15 guard railcars, but subsequently, MOD positioned the remaining railcars in Sergiev Posad for a technical team inspection scheduled in April 2003.

CTR program management visits are a key control to ensure compliance with the FAR. Program managers verify contractor performance against specific project requirements. In FY 2002, 140 site visits were documented with no significant discrepancies reported.

The CTR Logistics (CLS) contractor performs both preventive and corrective maintenance on program equipment to ensure the accomplishment of program objectives. The CLS contractor performed 5,691 maintenance actions during FY 2002 and did not report any instances where assistance was used for other than its intended purpose. Additionally, the CLS contractor provides transfer-of-custody and other services that give additional assurance that program equipment is adequately controlled.

Several Western firms (Bechtel National Services, Inc., Parsons Delaware, Inc., etc.) have contracted to deliver CTR assistance and maintain a continuous in-country work force to provide day-to-day on-site supervision. Frequent communications occur between CTR program managers and in-country contractors, including required written reports, which provide an effective mechanism to monitor project progress, issues, and contract execution. DoD also monitors other accountability methods such as financial audits performed by public accounting firms and DOE auditors. In this reporting period each report on CTR assistance was favorable.

DoD has significant concerns with the process ISTC uses to administer projects under their purview. To independently verify these concerns, DoD funded a review of ISTC processes by the KPMG public accounting firm, which issued a report dated December 9, 2001 that found roles within the ISTC were not clearly defined and no real structure existed to evaluate procedures and standardize processes. At the end of FY 2002, ISTC executive management reported to DoD that ISTC was reorganizing their management and operations structure to address the concerns raised by DoD.

DoD remains concerned about delay in completing the construction of the FMSF in Mayak, Russia. This delay is attributed to acceptable but less than desired performance by the Russian subcontractor and the limited number of U.S. representatives permited in the area by the 1997 DoD-MinAtom agreement. DoD is aggressively working with the Russian contractor and

other Russian agencies to resolve these. Construction is anticipated to be completed in June 2003 with the FMSF ready to start operation at the end of FY 2003.

DoD teams reported significant challenges related to the SS-24 Propellant Disposition Facility (PDF) Project in Pavlograd. Many instances were reported where the Ukrainian contractor refused to sign contracts or approve design changes as well as other cases of non-cooperation. Based on an action taken by OUSD(P), Ukraine directed the National Space Agency of Ukraine to provide oversight of the contractor, and performance then improved. . Testing is nearly complete, and DoD will make a final decision on design and construction of the PDF in 2003. In January 2003, Russia advised DoD that it is not possible to acquire the necessary land to construct the Solid Propellant Disposition Facility in Votkinsk. Russia has proposed to invest its own funds to convert two open burn facilities to semi-closed burn facilities and complete an existing closed burn facility. Russia has requested that DoD build storage facilities for SS-24 and SS-25 missiles or their motors. The combination of burn facilities and storage is intended to permit deactivation and removal of SS-24 and SS-25 missiles from their launchers on schedule, permitting launcher and missile elimination and destruction and eventual closeout of the ICBM bases. Given the significant loss of CTR investment resulting from the land allocation issue, DoD is considering options for continued CTR support of this project.

In February 2002, the Russian Aviation and Space Agency (RASA) informed DoD that Russia had diverted liquid rocket propellant drained from destroyed missiles to their space program and thus significant quantities would not be available for conversion in the mobile oxidizer processing systems being provided under the $100 million Liquid Propellant Disposition Systems (LPDS) project. DoD immediately stopped work on the project and implemented a number of management initiatives to eliminate reliance on Russian good faith obligations. First, the Deputy Secretary of Defense requested a DoD Inspector General review of the heptyl situation and other aspects of the CTR Program. Second, a review of all programs was completed and a senior DoD team met in Moscow with the Russia CTR Executive Agent representatives. Each executive agent stated they are prepared to: 1) hold semi-annual reviews, and 2) sign amendments to appropriate implementing agreements to replace the current good faith obligations with legal commitments on the part of the Russian Federation. Appropriate commitment amendments have been forwarded to the Russia CTR Executive Agents for signature. DoD worked with the executive agents during the executive review in January 2003 to finalize these amendments. DoD will salvage reusable parts of the LPDS for use in other CTR projects or for sale. DoD will retain rights to audit Russia's sale of the balance of the facility and the use of the proceeds to determine if they are consistent with CTR objectives.

Five A&Es were cancelled in Russia during FY 2002 due to the absence of a new arrangement with MinAtom and lack of approval by Russia of an SOAE executive agent until August 2002. DoD is working with MinAtom to conclude a new implementing arrangement, which is subordinate to the implementing agreement, to fully implement DoD A&E rights under existing agreements. With the disestablishment of the Ministry of Economics, the former SOAE executive agent, DoD signed a new SOAE Implementing Agreement on August 30, 2002 that designates RASA as Russia's new CTR Executive Agent for SOAE. Based on a verbal agreement between DoD and RASA officials, an A&E of SOAE assistance was performed in August 2002. DoD is working with RASA to finalize an implementing arrangement for the conduct of A&Es that includes audits of the use of proceeds from the sale of scrap material.

Appendix A: CTR Program Umbrella Agreements and Implementing Agreements

The Appendix provides a listing of all umbrella agreements, implementing agreements, and memoranda of understanding that have been negotiated with states of the FSU and have not expired and/or CTR Program project implementation has not been terminated or completed. Short titles used in the main body of this report are in parentheses.

GEORGIA

Agreement Between the Government of the United States of America and the Government of the Republic of Georgia Regarding Cooperation to Facilitate Humanitarian and Technical Economic Assistance, dated July 31, 1992.

Agreement Between the United States of America and Georgia Concerning Cooperation in the Area of the Prevention of Proliferation of Weapons of Mass Destruction, and the Promotion of Defense and Military Relations, dated July 17, 1997. **(U.S.-Georgia CTR Umbrella Agreement)**

Implementing Agreement Between the Department of Defense of the United States of America and the State Department of the State Border Guards of Georgia Concerning the Provision of Assistance to Georgia Related to the Establishment of Export Control Systems to Prevent the Proliferation of Weapons of Mass Destruction, dated January 30, 1998. **(Georgia Export Control Implementing Agreement)**

Agreement Between the Department of Defense of the United States of America and the Ministry of Defense of Georgia Concerning Cooperation in the Area of Prevention of Proliferation of Technology, Pathogens and Expertise Related to the Development of Biological Weapons, dated December 30, 2002. **(Biological Weapons Proliferation Prevention Georgia Implementing Agreement)**

KAZAKHSTAN

Agreement Between the United States of America and the Republic of Kazakhstan Concerning the Destruction of Silo Launchers of Intercontinental Ballistic Missiles, Emergency Response, and the Prevention of Proliferation of Nuclear Weapons, dated December 13, 1993. **(U.S.-Kazakhstan CTR Umbrella Agreement)**

Memorandum of Understanding and Cooperation on Defense and Military Relations Between the Department of Defense of the United States of America and the Ministry of Defense of the Republic of Kazakhstan, dated February 14, 1994. **(Defense and Military Contacts MOU)**

Agreement Between the Department of Defense of the United States of America and the Ministry of Defense of the Republic of Kazakhstan Concerning the Provision of Material, Services, and Related Training to the Republic of Kazakhstan in Connection with the Destruction of Silo Launchers of Intercontinental Ballistic Missiles and Associated Equipment and Components, dated December 13, 1993 and amended July 1, 1995 and June 10, 1996. **(Strategic Offensive Arms Elimination Implementing Agreement)**

Agreement Between the Department of Defense of the United States of America and the Ministry of Defense of the Republic of Kazakhstan Concerning the Provision to the Republic of Kazakhstan of Material and Services for the Establishment of a Government-to-Government

Communications Link, dated December 13, 1993, amended June 30, 1995, July 20, 1998 and extended August 1, 1997. **(Government-to-Government Communications Link Implementing Agreement)**

Agreement Between the Department of Defense of the United States of America and the Ministry of Defense of the Republic of Kazakhstan Concerning the Provision to the Republic of Kazakhstan of Emergency Response Equipment and Related Training in Connection with the Removal of Nuclear Warheads from the Republic of Kazakhstan for Destruction and the Removal of Intercontinental Ballistic Missiles and the Destruction of their Silo Launchers, dated December 13, 1993 and extended December 29, 1995 and November 17, 1997. **(Emergency Response Implementing Agreement)**

Agreement Between the Department of Defense of the United States of America and the Ministry of Defense of the Republic of Kazakhstan Concerning the Provision of Assistance to the Republic of Kazakhstan Related to the Establishment of Export Control Systems to Prevent the Proliferation of Weapons of Mass Destruction, dated December 13, 1993, amended June 30, 1995, and extended December 29, 1995. **(Export Control Implementing Agreement)**

Agreement Between the Department of Defense of the United States of America and the Ministry of Defense of the Republic of Kazakhstan Concerning the Conversion of Military Technologies and Capabilities into Civilian Activities, dated March 19, 1994 and extended July 20, 1998 and December 17, 1999. **(Defense Conversion Implementing Agreement)**

Agreement Between the Department of Defense of the United States of America and the Ministry of Energy, Industry, and Trade of the Republic of Kazakhstan Concerning the Elimination Infrastructure for Weapons of Mass Destruction, dated October 3, 1995 and amended June 10, 1996, September 9, 1998, December 17, 1999, July 29, 2000 and May 13, 2002. **(Weapons of Mass Destruction Infrastructure Elimination Implementing Agreement)**

MOLDOVA

Agreement Between the Government of the United States of America and the Government of Moldova Regarding Cooperation to Facilitate the Provision of Assistance, dated March 21, 1994.

Memorandum on Cooperation on Defense and Military Relations Between the Ministry of Defense of the Republic of Moldova and the Department of Defense of the United States of America, dated December 4, 1995. **(Defense and Military Relations Moldova Agreement)**

Agreement Between the Department of Defense of the United States of America and the Ministry of Defense of the Republic of Moldova Concerning Cooperation in the Area of the Prevention of Proliferation of Weapons of Mass Destruction, and the Promotion of Defense and Military Relations, dated June 25, 1997. **(U.S.-Moldova CTR Umbrella Agreement)**

RUSSIA

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, dated June 17, 1992, as amended and extended June 15/16, 1999. **(U.S.-Russia CTR Umbrella Agreement)**

Agreement Between the Department of Defense of the United States of America and the Ministry of Atomic Energy of the Russian Federation Concerning the Safe and Secure Transportation and Storage of Nuclear Weapons Material through the Provision of Fissile Material Containers, dated June 17, 1992, amended July 23, 1997, and June 10, 1998, and extended May 28, 1996. **(Fissile Material Containers Implementing Agreement)**

Agreement Between the Department of Defense of the United States of America and the Ministry of Atomic Energy of the Russian Federation Concerning the Safe and Secure Transportation and Storage of Nuclear Weapons through the Provision of Emergency Response Equipment and Related Training, dated June 17, 1992, amended March 26, 1993, and March 23, 1994, and extended May 25, 1994, May 28, 1996, and April 1, 1998. **(Emergency Response Implementing Agreement)**

Agreement Between the Department of Defense of the United States of America and the President's Committee on Conventional Problems of Chemical and Biological Weapons of the Russian Federation Concerning the Safe, Secure, and Ecologically Sound Destruction of Chemical Weapons, dated July 30, 1992 and amended March 18, 1994, May 28, 1996, April 10, 1997, December 29, 1997, January 14, 1999, November 14, 2000, August 29, 2002 and October 23, 2002. **(Chemical Weapons Destruction Implementing Agreement)**

Agreement Establishing an International Science and Technology Center, dated November 27, 1992. **(The International Science and Technology Center Agreement)**

Agreement Between the Government of the United States of America and the Government of the Russian Federation on Science and Technology Cooperation, dated December 16, 1993. **(Science and Technology Cooperation Russia Implementing Agreement)**

Memorandum of Agreement Between the Government of the United States of America and the International Science and Technology Center Concerning the Contribution of Funds for Approved Project to Facilitate the Nonproliferation of Weapons and Weapons Expertise, dated April 15, 1996, amended by annexes May 23, 1997, May 21, 1998, and January 26, 1999, and by amendments to the annex of January 26, 1999, June 29, 1999, and September 18, 2000. **(ISTC Funding Memorandum of Agreement)**

Agreement Between the Department of Defense of the United States of America and the Russian Aviation and Space Agency of the Russian Federation Concerning Cooperation in the Elimination of Strategic Offensive Arms, dated August 26, 1993 and amended April 3, 1995, June 19, 1995, May 27, 1996, April 11, 1997, February 11, 1998, June 9, 1998, August 16, 1999, and August 8, 2000, and amended and extended August 30, 2002. **(Strategic Offensive Arms Elimination Implementing Agreement)**

Agreement Between the Department of Defense of the United States of America and the Ministry of the Russian Federation for Atomic Energy Concerning the Safe and Secure Transportation of Nuclear Weapons and Nuclear Weapons Material through the Provision of Cargo and Guard Railcar Conversion Kits, dated August 28, 1992, amended March 23, 1994, and extended May 28, 1996 and April 1, 1998. **(Railcar Conversion Implementing Agreement)**

Agreement Between the Department of Defense of the United States of America and the Ministry of the Russian Federation for Atomic Energy Concerning the Provision of Material, Services, and Training Relating to the Construction of a Safe, Secure, and Ecologically Sound Storage

Facility for Fissile Material Derived from the Destruction of Nuclear Weapons, dated September 2, 1993, amended June 20, 1995, September 6, 1996, April 9, 1997, May 26, 1999, September 15, 1999 and August 21, 2000, and extended January 27, 1999. **(Fissile Material Storage Facility Construction Implementing Agreement)**

Memorandum of Understanding and Cooperation on Defense and Military Relations Between the Department of Defense of the United States of America and the Ministry of Defense of the Russian Federation, dated September 8, 1993. **(Defense and Military Contacts MOU)**

Protocol on Cooperation in the Implementation of Certain Defense Conversion Projects, dated December 16, 1993, amended March 18, 1994, and extended December 15, 1997. **(Defense Conversion Implementing Agreement)**

Agreement Between the Department of Defense of the United States of America and the Ministry of Defense of the Russian Federation Concerning Cooperation in Nuclear Weapons Transportation Security through Provision of Material, Services, and Related Training, dated April 3, 1995, amended June 21, 1995, May 27, 1996, June 12, 2000, February 28, 2002 and September 19, 2002 and extended January 14, 1999 and January 25, 2000. **(Nuclear Weapons Transportation Security Implementing Agreement)**

Agreement Between the Department of Defense of the United States of America and the Ministry of Defense of the Russian Federation Concerning Cooperation in Nuclear Weapons Storage Security through Provision of Material, Services, and Related Training, dated April 3, 1995, amended June 21, 1995, May 27, 1996, April 8, 1997, January 14, 1999, November 1, 1999, June 12, 2000, and September 19, 2002 and extended January 14, 1999 and January 25, 2000. **(Nuclear Weapons Storage Security Implementing Agreement)**

UKRAINE

Agreement Between the United States of America and Ukraine Concerning Assistance to Ukraine in the Elimination of Strategic Nuclear Arms, and the Prevention of Proliferation of Weapons of Mass Destruction, dated October 25, 1993 and extended July 31, 1999. **(U.S.- Ukrainian CTR Umbrella Agreement)**

Memorandum of Understanding and Cooperation on Defense and Military Relations Between the Department of Defense of the United States of America and the Ministry of Defense of Ukraine, dated July 27, 1993. **(Defense and Military Contacts MOU)**

Agreement Between the Department of Defense of the United States of America and the Ministry of Defense of Ukraine Concerning the Provision of Material, Services, and Related Training to Ukraine in Connection with the Elimination of Strategic Nuclear Arms, dated December 5, 1993 and amended December 18, 1993, March 21, 1994, April 1, 1995, June 27, 1995, June 4, 1996, May 1, 1997, June 12, 1998, July 10, 1999, July 28, 2000, December 4, 2000 and September 9, 2002 and extended January 31, 2001. **(Strategic Nuclear Arms Elimination Implementing Agreement)**

Agreement Between the Department of Defense of the United States of America and the Expert and Technical Committee of the Cabinet of Ministers of Ukraine Concerning the Provision of Assistance to Ukraine Related to the Establishment of an Export Control System to Prevent the Proliferation of Weapons of Mass Destruction from Ukraine, dated December 5, 1993, amended

March 21, 1994, June 27, 1995, and June 12, 1998 and extended December 6, 1995, and August 13, 1999. **(Export Control Implementing Agreement)**

Agreement Between the Department of Defense of the United States of America and the Ministry of Defense of Ukraine Concerning the Provision to Ukraine of Material and Services for the Establishment of a Government-to-Government Communications Link, dated December 18, 1993 and extended July 24, 1997 and December 28, 1998. **(Government-to-Government Communications Link Implementing Agreement)**

Agreement Between the Department of Defense of the United States of America and the Ministry of Defense of Ukraine Concerning the Provision to Ukraine of Emergency Response Equipment and Related Training in Connection with the Removal of Nuclear Warheads from Ukraine for Destruction in the Course of the Elimination of Strategic Nuclear Arms, dated December 18, 1993. **(Emergency Response Implementing Agreement)**

Agreement Between the Department of Defense of the United States of America and the Ministry of Machine Building, Military-Industrial Complex and Conversion of Ukraine Concerning the Conversion of Enterprises of the Military-Industrial Complex, dated March 21, 1994, amended June 27, 1995, February 12, 1996 and June 12, 1998, and extended August 1, 1997 and February 6, 2001. **(Defense Conversion Implementing Agreement)**

Agreement to Establish a Science and Technology Center in Ukraine, dated October 25, 1993. **(Science and Technology Center Ukraine Agreement)**

Agreement Between the Department of Defense of the United States of America and the Ministry of Defense of Ukraine Concerning Cooperation in the Elimination of Infrastructure for Weapons of Mass Destruction through Provision to Ukraine of Material, Services, and Related Training, dated June 27, 1995, amended June 4, 1996, and extended June 12, 1998 and October 30, 2001. **(Weapons of Mass Destruction Infrastructure Elimination Implementing Agreement)**

UZBEKISTAN

Agreement Between the Government of the United States of America and the Government of the Republic of Uzbekistan Concerning Cooperation in the Area of the Promotion of Defense Relations and the Prevention of Proliferation of Weapons of Mass Destruction, dated June 5, 2001. **(U.S.-Uzbekistan CTR Umbrella Agreement)**

Agreement Between the Department of Defense of the United States of America and the Ministry of Defense of the Republic of Uzbekistan Concerning Cooperation in the Area of Dismantlement of Weapons of Mass Destruction, the Prevention of Proliferation of Weapons of Mass Destruction, and the Promotion of Defense and Military Relations, dated June 27, 1997. **(Dismantlement of WMD Implementing Agreement)**

Agreement Between the Department of Defense of the United States of America and the Ministry of Defense of the Republic of Uzbekistan Concerning Cooperation in the Area of Demilitarization of Chemical Weapons Associated Facilities and the Prevention of Proliferation of Chemical Weapons Technology, dated May 25, 1999 and amended July 11, 2001. **(Chemical Weapons Proliferation Prevention Uzbekistan Implementing Agreement)**

Implementing Agreement on Border Security Assistance Between the Department of Defense of the United States of America and the Ministry of Defense of the Republic of Uzbekistan Under

the Agreement Concerning Cooperation in the Area of the Dismantlement of Weapons of Mass Destruction, the Prevention of Proliferation of Weapons of Mass Destruction, and the Promotion of Defense and Military Relations, dated June 2, 2000. **(Border Security Assistance Implementing Agreement)**

*Agreement Between the Department of Defense of the United States of America and the Ministry of Defense of the Republic of Uzbekistan Concerning Cooperation in the Area of Demilitarization of Biological Weapons Associated Facilities and the Prevention of Proliferation of Biological Weapons Technology, dated October22, 2001***. (Biological Weapons Proliferation Prevention Uzbekistan Implementing Agreement)**

Appendix B: CTR Program Notifications, Obligations, and Disbursements ($M)

Program Title	Notified In FY2002	Cumulative Notified	Obligated In FY2002	Cumulative Obligations	Expended in FY2002	Cumulative Expended
Strategic Offensive Arms Elimination (R)	$204.43	$1,023.58	$131.66	$811.17	$110.22	$630.36
Nuclear Weapons Storage Security (R)	$132.20	$373.90	$93.14	$263.64	$40.97	$153.81
Nuclear Weapons Transportation Security (R)	$25.78	$85.28	$10.66	$69.73	$16.36	$57.74
Fissile Material Storage Facility Design (R)	$0.00	$15.00	$0.00	$15.00	$0.00	$14.96
Fissile Material Storage Facility (R)	$39.48	$370.18	$4.66	$334.80	$69.11	$245.65
Fissile Material Containers (R)	$0.00	$73.51	($0.02)	$73.38	$0.06	$69.17
Elimination of Weapons Grade Plutonium Production (R)	$0.00	$26.05	$0.05	$25.94	$1.53	$25.93
Chemical Weapons Destruction (R)	$24.30	$310.80	$23.75	$295.07	$39.42	$208.59
Emergency Response (R)	($1.08)	$15.35	($0.09)	$14.86	$0.00	$14.83
Security Enhancements for Railcars (R)	($0.01)	$21.49	($0.00)	$21.38	$0.19	$21.38
Material Control and Accounting (R)	($0.42)	$44.37	($0.31)	$43.82	$0.00	$43.82
Export Control (R)	($0.04)	$2.22	$0.00	$2.22	($0.19)	$2.04
Armored Blankets (R)	$0.00	$3.32	$0.00	$2.99	$0.00	$2.99
Defense Conversion (R)	$0.00	$43.66	$2.11	$36.97	$1.31	$35.67
International Science and Technology Center (R)	$0.00	$35.00	($0.00)	$34.89	$0.00	$34.89
Research and Development Foundation (R)	$0.00	$10.00	$0.00	$10.00	$0.00	$10.00
Arctic Nuclear Waste (R)	$0.00	$30.00	($0.75)	$29.24	$0.02	$28.72
Fissile Material Processing and Packaging (R)	($9.30)	$0.00	$0.00	$0.00	$0.00	$0.00
Strategic Nuclear Arms Elimination (U)	$64.10	$550.05	$34.98	$485.96	$36.51	$429.99
Government-to-Government Communications Link (U)	($0.05)	$2.17	($0.01)	$2.06	$0.01	$1.95
WMD Infrastructure Elimination (U)	$6.02	$29.42	$1.40	$18.02	$1.39	$15.73
Emergency Response (U)	($0.16)	$2.95	($0.13)	$2.81	$0.00	$2.80
Multilateral Nuclear Safety Initiative (U)	$0.00	$11.00	$0.00	$11.00	$0.04	$10.99
Material Control and Accounting (U)	($0.04)	$22.18	($0.20)	$21.98	$0.18	$21.75
Export Control (U)	($0.02)	$13.93	($0.06)	$13.85	$0.00	$13.83
Defense Conversion (U)	$0.00	$55.73	$0.13	$55.18	$0.45	$54.68
Science and Technology Center (U)	$0.00	$15.00	($0.31)	$14.69	$0.00	$14.69
Strategic Offensive Arms Elimination (K)	($4.42)	$59.92	$0.10	$59.58	$1.05	$58.56
Government-to-Government Communications Link (K)	($0.22)	$2.38	($0.05)	$2.32	$0.00	$2.31
WMD Infrastructure Elimination (K)	$12.50	$42.00	$3.68	$33.02	$1.04	$29.14
BW Proliferation Prevention (KZ)	$0.00	$5.00	$0.00	$4.99	$0.59	$1.39
Emergency Response (K)	($0.23)	$4.67	($0.69)	$4.00	$0.00	$3.99
Material Control and Accounting (K)	($0.40)	$22.16	($0.27)	$21.89	($0.01)	$21.82
Export Control (K)	($0.09)	$7.17	($0.04)	$7.13	$0.00	$7.11
Defense Conversion (K)	$0.00	$17.20	$0.00	$17.04	$0.08	$17.01
Science and Technology Center (K)	$0.00	$9.00	$0.00	$9.00	$0.00	$9.00
Strategic Offensive Arms Elimination (B)	($0.24)	$3.34	($0.00)	$3.34	$0.00	$3.34
Continuous Communications Link (B)	($0.01)	$1.03	($0.00)	$1.00	$0.00	$1.00
Environmental Restoration (Project Peace) (B)	($0.04)	$24.91	($0.47)	$24.44	$0.00	$24.36
Emergency Response (B)	$0.00	$5.00	($0.03)	$4.86	$0.00	$4.82
Material Control and Accounting (B)	($0.05)	$2.59	$0.01	$2.60	$0.00	$2.59
Export Control (B)	($0.24)	$12.23	($0.10)	$12.02	($0.10)	$11.98
Defense Conversion (B)	($0.02)	$19.25	($0.01)	$19.24	$0.00	$19.24
Science and Technology Center (B)	$0.00	$1.03	$0.00	$1.03	$0.00	$1.03
Special Project	$0.00	$40.00	$0.00	$40.00	$0.00	$40.00
Nukus Chemical Research (UZ)	$0.00	$8.50	($0.02)	$8.37	$2.76	$8.13
Export Control (G)	($0.16)	$1.14	($0.01)	$1.14	($0.01)	$1.10
Auburn Endeavor	($0.51)	$4.09	$0.00	$4.13	$0.00	$4.13
BW Proliferation Prevention (FSU)	$57.90	$81.00	$26.69	$46.34	$18.40	$31.94
Defense and Military Contacts (FSU)	$23.84	$52.10	$6.04	$25.40	$6.60	$20.17
Defense and Military Contacts (R)	$0.00	$14.66	($1.21)	$11.17	$0.10	$10.13
Defense and Military Contacts (U)	$0.00	$7.50	($1.18)	$3.92	$0.14	$3.79
Defense and Military Contacts (K)	$0.00	$2.30	($0.22)	$1.51	$0.12	$1.33
Defense and Military Contacts (B)	($0.03)	$0.47	($0.05)	$0.42	$0.00	$0.42
Defense and Military Contacts (CP)	$0.00	$4.29	$0.19	$4.15	$0.11	$1.29
Defense Enterprise Fund (R)	$0.00	$10.00	$0.00	$10.00	$0.00	$10.00
Defense Enterprise Fund (K)	$0.00	$7.00	$0.00	$7.00	$0.00	$7.00
Defense Enterprise Fund (B)	$0.00	$5.00	$0.00	$5.00	$0.00	$5.00
Defense Enterprise Fund (FSU)	$0.00	$44.67	$0.00	$44.67	$0.00	$44.67
Industrial Partnering Program (FSU)	$0.00	$10.00	$0.00	$10.00	$0.22	$9.34
Science and Technology Center (FSU)	$0.00	$3.97	$0.00	$3.97	$0.00	$3.97
Other Assessments/Administration Costs	$25.11	$120.35	$9.17	$102.70	$15.36	$96.85
Total CTR	$597.89	$3,842.07	$342.16	$3,268.03	$364.01	$2,684.90

Appendix C: Program To Date Obligations by Category

Section IV Paragraph	Program / Project	Equipment	Services	CLS	Other	Total
1.1	**Strategic Offensive Arms Elimination – Russia**	**$99,816,856**	**$624,789,686**	**$50,152,303**	**$36,406,749**	**$811,165,593**
1.1.1	Heavy Bomber Elimination Equipment	$3,932,027			$193,788	$4,125,815
1.1.2	Emergency Response Support Equipment	$4,061,799			$1,476,416	$5,538,215
1.1.3	Solid Propellant Disposition Facility		$105,224,691		$1,315,115	$106,539,806
1.1.4	Solid Propellant ICBM/SLBM and Mobile Launcher Elimination	$835,000	$69,893,018		$2,189,826	$72,917,843
1.1.5	Liquid Propellant Disposition Systems	$17,136,942	$87,339,530		$1,337,677	$105,814,149
1.1.6	Liquid Propellant ICBM and Silo Elimination	$46,535,226	$95,185,340		$14,497,670	$156,218,236
1.1.7	SLBM Launcher Elimination/SSBN Dismantlement	$26,425,845	$190,787,671		$12,243,021	$229,456,537
1.1.8	Low Level Radioactive Waste Volume Reduction		$38,870,564		$326,742	$39,197,306
1.1.9	Spent Naval Fuel Disposition		$13,664,568		$1,079,820	$14,744,388
1.1.10	Liquid Propellant SLBM Elimination	$890,017	$23,824,305		$1,746,673	$26,460,994
	CLS For the SOAE Program			$50,152,303		$50,152,303
2.1	**Nuclear Weapons Storage Security - Russia**	**$60,845,129**	**$194,861,007**	**$2,872,570**	**$5,065,463**	**$263,644,169**
2.1.1	Automated Inventory Control & Management System (AICMS)	$13,608,453	$30,060,260		$854,005	$44,522,719
3.1	Personnel Reliability and Safety	$4,993,763	$2,512,703		$190,059	$7,696,525
2.1.2	Guard Force Equipment and Training	$7,908,917	$8,377,633		$568,596	$16,855,146
2.1.3	Nuclear Weapons Storage Site Support	$7,917,960	$21,996,941		$1,077,889	$30,992,789
2.1.4	Security Assessment, Training, and Logistics		$25,027,495		$642,105	$25,669,600
2.1.5	Site Security Enhancements	$26,416,036	$106,885,975		$1,732,809	$135,034,819
	CLS for NWSS Program			$2,872,570		$2,872,570
2.2	**Nuclear Weapons Transportation Security - Russia**	**$48,297,635**	**$40,076,616**	**$1,317,556**	**$1,417,292**	**$91,109,099**
2.2.1	Nuclear Weapons Transportation		$23,878,553		$41,774	$23,920,327
2.2.2	Supercontainers	$19,926,451	$2,740,631		$1,058,899	$23,725,981
2.2.2	Emergency Support Equipment	$6,871,677	$1,732,715		$250,756	$8,855,148
2.2.3	Security Enhancements for Railcars/Railcar Maintenance and Procurement	$16,407,866	$6,786,358		$33,833	$23,228,057
2.2.4	Transportation Safety Enhancements	$5,091,641	$4,938,359		$32,031	$10,062,031

Section IV Paragraph	Program / Project	Equipment	Services	CLS	Other	Total
	CLS for NWTS Program			$1,317,556		$1,317,556
*	**Fissile Material Storage Facility Design - Russia**	**$464,634**	**$14,533,950**			**$14,998,584**
2.3	**Fissile Material Storage Facility - Russia**	**$8,938,758**	**$318,514,338**	**$2,525,725**	**$4,819,114**	**$334,797,935**
2.3	First Wing	$8,938,758	$315,235,492	$2,073,554	$3,890,293	$330,138,097
2.4	**Fissile Material Containers - Russia**	**$38,664,354**	**$31,436,359**	**$432,797**	**$2,841,497**	**$73,375,006**
2.4	Fissile Material Containers - Mayak	$38,664,354	$20,912,024	$432,797	$2,841,497	$62,850,671
*	Technology Development and Demonstration		$10,524,335			$10,524,335
2.10	**Elimination of Weapons Grade Plutonium Production - Russia**		**$25,781,855**		**$162,336**	**$25,944,191**
1.2	**Chemical Weapons Destruction - Russia**	**$8,218,475**	**$275,342,034**	**$9,406,777**	**$2,107,450**	**$295,074,736**
1.2.1	Chemical Weapons Destruction Facility	$5,493,311	$215,830,738		$1,782,891	$223,106,940
1.2.2	Chemical Agent Analytical Monitoring	$2,725,164	$25,328,481		$305,351	$28,358,995
1.2.3	Chemical Weapons Production Facility Demilitarization		$14,337,569		$5,368	$14,342,937
2.6	Chemical Weapons Site Security		$19,845,246		**$13,840**	$19,859,087
	CLS for Chemical Weapons Destruction Program			$9,406,777		$9,406,777
2.9.1	**Emergency Response - Russia**	**$6,457,289**	**$7,489,073**	**$697,111**	**$216,451**	**$14,859,923**
	Security Enhancements for Railcars - Russia					
*	**Material Control & Accounting - Russia**		**$42,762,134**	**$588,070**	**$470,822**	**$43,821,027**
*	**Export Control - Russia**		**$2,176,049**		**$48,035**	**$2,224,084**
*	**Armored Blankets - Russia**	**$2,579,434**	**$375,413**		**$36,400**	**$2,991,247**
*	**Defense & Military Contacts - Russia**		**$11,167,373**			**$11,167,373**
4.4.1	**Defense Conversion - Russia**	**$134,797**	**$36,349,547**		**$481,582**	**$36,965,926**
4.4.1	Defense Conversion - Russia	$134,797	$5,100,582			$5,235,379
4.4.1.1	Housing Conversion		$19,786,924		$210,449	$19,997,373
4.4.1.2	Industry Conversion		$11,462,041		$271,133	$11,733,174
4.6	**International Science & Technology Center - Russia**		**$34,781,835**		**$110,732**	**$34,892,567**
4.7	**Civilian Research & Development Foundation - Russia**		**$10,000,000**			**$10,000,000**
*	**Arctic Nuclear Waste - Russia**		**$29,237,798**			**$29,237,798**
4.8.1	**Defense Enterprise Fund - Russia**		**$10,000,000**			**$10,000,000**

Section IV Paragraph	Program / Project	Equipment	Services	CLS	Other	Total
	Russia Total	**$274,417,361**	**$1,709,675,068**	**$67,992,909**	**$54,183,921**	**$2,106,269,259**
1.4	**Strategic Nuclear Arms Elimination - Ukraine**	**$62,555,876**	**$352,209,714**	**$56,764,600**	**$14,433,614**	**$485,963,804**
*	SS-19 Liquid Propellant Disposition	$5,452,121	$1,539,429		$791,366	$7,782,915
1.4.1	SS-19 Neutralization and Dismantlement Facility	$14,139,734	$37,603,565		$3,119,337	$54,862,636
1.4.2	SS-24 Silo Elimination	$1,460,134	$54,462,315		$658,069	$56,580,518
1.4.3	SS-24 Missile Disassembly, Storage, and Elimination		$93,461,812		$688,413	$94,150,225
1.4.4	SS-24 Propellant Disposition Facility		$35,361,401		$953,545	$36,314,946
1.4.5	Bomber & ALCM Elimination	$941,848	$18,808,356		$262,361	$20,012,564
1.4.6	Non-Deployed ICBM Elimination Equipment	$1,518,276	$698,270		$265,719	$2,482,265
1.4.7	Emergency Response Support Equipment	$11,663,396	$1,502,352		$2,225,509	$15,391,257
4.4.2.2	SS-19 Housing		$19,678,716			$19,678,716
1.4.8	SS-19 Silo Elimination	$27,380,367	$89,093,498		$5,469,297	$121,943,162
	CLS for SNAE Program			$56,764,600		$56,764,600
4.1	**Government-to-Government Communications Link - Ukraine**	**$921,614**	**$36,196**	**$109,091**	**$998,055**	**$2,064,955**
1.5	**WMD Infrastructure Elimination - Ukraine**		**$17,346,131**	**$191,996**	**$482,102**	**$18,020,230**
1.5.1	UFF/NWSA Elimination		$14,515,525		$422,587	$14,938,112
1.5.2	Liquid Missile Propellant and Storage Facility Elimination		$1,459,371		$52,093	$1,511,463
1.5.3	National Nuclear Storage Site Elimination		$1,371,236		$7,423	$1,378,659
	CLS for WMDIE (U) Program			$191,996		$191,996
*	**Emergency Response - Ukraine**	**$1,651,583**	**$822,200**	**$250,000**	**$89,349**	**$2,813,132**
*	**Multilateral Nuclear Safety Initiative - Ukraine**		**$11,000,000**			**$11,000,000**
*****	**Material Control & Accounting - Ukraine**		**$21,471,640**	**$220,000**	**$283,407**	**$21,975,046**
4.5.1	**Export Control - Ukraine**	**$9,080,250**	**$2,053,980**	**$1,894,883**	**$821,790**	**$13,850,902**
4.3	**Defense & Military Contacts - Ukraine**		**$3,915,149**			**$3,915,149**
4.4.2	**Defense Conversion - Ukraine**	**$1,407,653**	**$52,768,798**	**$598,861**	**$402,493**	**$55,177,805**
4.6	**Science & Technology Center - Ukraine**		**$14,650,738**		**$39,293**	**$14,690,031**
	Ukraine Total	**$75,616,976**	**$476,274,547**	**$60,029,430**	**$17,550,103**	**$629,471,056**
1.6	**Strategic Offensive Arms Elimination - Kazakhstan**	**$2,276,465**	**$51,702,990**	**$3,154,275**	**$2,448,357**	**$59,582,087**

Section IV Paragraph	Program / Project	Equipment	Services	CLS	Other	Total
*	SS-18 Silo Elimination		$37,163,797		$1,610,702	$38,774,499
*	Strategic Bomber Elimination	$1,347,465	$459,073		$563,485	$2,370,023
1.6.1	Unified Fill Facility/Nuclear Warhead Storage Elimination	$929,000	$14,080,120		$274,170	$15,283,290
	CLS for SOAE (K) Program			$3,154,275		$3,154,275
4.2	**Government-to-Government Communications Link - Kazakhstan**	**$939,706**	**$772,041**	**$182,525**	**$422,493**	**$2,316,764**
1.7/2.5	**Weapons of Mass Destruction Infrastructure Elimination - Kazakhstan**	**$653,360**	**$33,465,393**	**$638,675**	**$3,254,856**	**$38,012,284**
*	Nuclear Testing Infrastructure Elimination	$536,592	$17,827,775		$1,573,494	$19,937,861
*	Project Sapphire				$1,000,000	$1,000,000
1.7.1	BW Infrastructure Elimination - Kazakhstan	$116,768	$8,284,669		$298,168	$8,699,606
2.5.1	Fissile and Radioactive Materials Prevention of Proliferation		$5,420,681		$248,091	$5,668,772
2.8	BW Security & Transparency - Kazakhstan		$1,932,268		$135,103	$2,067,370
	CLS for WMDIE (K) Program			$638,675		$638,675
2.9.2	**Emergency Response - Kazakhstan**	**$763,284**	**$2,596,015**	**$458,793**	**$179,225**	**$3,997,317**
*****	**Material Control & Accounting - Kazakhstan**		**$21,439,708**	**$237,090**	**$209,197**	**$21,885,995**
4.5.2	**Export Control - Kazakhstan**	**$3,974,301**	**$1,982,907**	**$203,851**	**$968,830**	**$7,129,889**
4.3	**Defense & Military Contacts – Kazakhstan**		**$1,505,251**			**$1,505,251**
4.4.3	**Defense Conversion – Kazakhstan**		**$16,766,279**	**$6,000**	**$269,189**	**$17,041,468**
4.6	**Science & Technology Center – Kazakhstan**		**$8,979,300**		**$20,700**	**$9,000,000**
4.8.2	**Defense Enterprise Fund – Kazakhstan**		**$7,000,000**			**$7,000,000**
	Kazakhstan Total	**$8,607,116**	**$146,209,884**	**$4,881,209**	**$7,772,846**	**$167,471,055**
*	**Strategic Offensive Arms Elimination – Belarus**		**$2,552,837**	**$321,103**	**$467,776**	**$3,341,716**
*	SS-25 Fixed Structure Foundation Elimination & LRPD		$2,552,837		$467,776	$3,020,613
	CLS for SOAE (B) Program			$321,103		$321,103
*****	**Continuous Communications Link - Belarus**	**$370,368**	**$527,722**	**$103,287**		**$1,001,377**
*****	**Environmental Restoration (Project Peace) - Belarus**	**$10,245,306**	**$13,729,071**	**$35,999**	**$430,272**	**$24,440,648**
*****	**Emergency Response - Belarus**	**$3,783,663**	**$994,523**	**$7,603**	**$77,013**	**$4,862,802**
*****	**Material Control & Accounting - Belarus**		**$2,536,605**	**$40,583**	**$21,495**	**$2,598,683**
*****	**Export Control - Belarus**	**$6,642,011**	**$2,263,682**	**$2,138,681**	**$974,552**	**$12,018,926**

Section IV Paragraph	Program / Project	Equipment	Services	CLS	Other	Total
*	Defense & Military Contacts - Belarus		$420,487			$420,487
*	Defense Conversion - Belarus	$259,868	$18,765,686	$40,000	$177,746	$19,243,300
*	Science & Technology Center - Belarus		$1,034,460			$1,034,460
*	Defense Enterprise Fund - Belarus		$5,000,000			$5,000,000
	Belarus Total	$21,301,216	$47,825,073	$2,687,256	$2,148,853	$73,962,399
*	Special Project - Moldova				$40,000,000	$40,000,000
	Moldova Total				$40,000,000	$40,000,000
1.8	Nukus Chem. Research Institute Demilitarization -Uzbekistan		$7,643,674		$725,009	$8,368,683
	Uzbekistan Total		$7,643,674		$725,009	$8,368,683
4.5.3	Export Control - Georgia	$679,550	$362,766	$69,752	$25,362	$1,137,429
*	Auburn Endeavor - Georgia		$4,133,250			$4,133,250
	Georgia Total	$679,550	$4,496,016	$69,752	$25,362	$5,270,679
1.3/2.7/3.2	BW Proliferation Prevention - Former Soviet Union	$1,007,055	$43,534,055	$262,000	$1,538,318	$46,341,428
4.3	Defense & Military Contacts - Former Soviet Union		$25,387,458		$8,252	$25,395,710
4.3	Defense & Military Contacts - Counter Proliferation		$4,146,592			$4,146,592
4.8	Defense Enterprise Fund - Former Soviet Union		$44,670,000			$44,670,000
4.9	Initiatives for Proliferation Prevention - Former Soviet Union		$10,000,000			$10,000,000
4.6	International Science and Technology Center		$3,965,540			$3,965,540
*	Other Assessments/Administrative Costs		$74,363,031	$47,772	$28,290,800	$102,701,603
	Former Soviet Union - Former Soviet Union Programs Total	$1,007,055	$206,066,676	$309,772	$29,837,370	$237,220,873
	Grand Total	$381,629,275	$2,598,190,938	$135,970,328	$152,243,464	$3,268,034,005

* Indicates CTR work is complete and no A&Es were performed on this project during FY02.

Appendix D: CTR Equipment and Locations as of September 30, 2002

Item Name	Unit Price	Quantity	Total Value	Arrival Date	Location
Country - Russia					
Project: Heavy Bomber Elimination Equipment – 1.1.1			**$3,187,659**		
Baler	$362,230	1	$362,230	9/30/1995	Engels AFB
Crane	$174,560	2	$349,120	11/5/1994	Engels AFB
Cutter, Guillotine	$23,726	1	$23,726	1/17/1995	Engels AFB
Cutter, Guillotine	$23,726	1	$23,726	6/15/1995	Engels AFB
Dump truck	$63,178	2	$126,356	11/5/1994	Engels AFB
Excavator	$744,368	1	$744,368	11/9/1995	Engels AFB
Fax Machine	$1,345	1	$1,345	1/17/1997	Engels AFB
Fire truck	$191,512	3	$574,537	6/15/1995	Engels AFB
Tool Carrier, Integrated	$145,675	2	$291,350	11/5/1994	Engels AFB
Tool, Universal Hydraulic	$6,628	1	$6,628	11/5/1994	Engels AFB
Tool, Universal Hydraulic	$40,868	1	$40,868	11/5/1994	Engels AFB
Tractor	$63,847	2	$127,695	11/5/1994	Engels AFB
Trailer	$18,588	2	$37,176	11/5/1994	Engels AFB
Wheel Loader	$239,267	2	$478,534	11/5/1994	Engels AFB
Project: Emergency Response Support Equipment – 1.1.2			**$4,061,799**		
Crane with Boom Car	$2,279,000	1	$2,279,000	9/7/1999	Krasnoyarsk
Hydro-Cutter	$284,592	1	$284,592	9/7/1999	Krasnoyarsk
Excavator	$369,113	2	$738,226	9/7/1999	Krasnoyarsk
Grapple	$27,796	2	$55,592	9/7/1999	Krasnoyarsk
Jack, Pillow	$1,800	5	$9,000	9/7/1999	Krasnoyarsk
MSD, Shear	$183,521	2	$367,042	9/7/1999	Krasnoyarsk
Processor, General	$23,435	1	$23,435	9/7/1999	Krasnoyarsk
Processor, Universal	$224,808	1	$224,808	9/7/1999	Krasnoyarsk
Truck	$80,104	1	$80,104	9/7/1999	Krasnoyarsk
Project: Solid Propellant Disposition Facility - 1.1.3			No GFE equipment with a total value $\geq$ $5,000 has been provided under this project.		
Project: Solid Propellant ICBM/SLBM and Mobile Launcher Elimination 1.1.4			**$835,000**		
Crane	$835,000	1	$835,000	3/31/1999	Votkinsk
Project: Liquid Propellant Disposition Systems – 1.1.5			**$17,136,942**		
Plant, Steam Generator	$520,334	2	$1,040,667	10/13/1997	Krasnoyarsk
Shelter, UDMH Unit 1	$410,000	1	$410,000	10/21/1997	Krasnoyarsk
Shelter, UDMH Unit 2	$410,000	1	$410,000	10/21/1997	Krasnoyarsk
Tool, Balance	$102,943	1	$102,943	10/4/1997	Krasnoyarsk
UDMH Accessories Unit 1	$53,630	1	$53,630	1/31/1998	Krasnoyarsk
UDMH Accessories Unit 1	$80,883	1	$80,883	1/31/1998	Krasnoyarsk
UDMH Accessories Unit 2	$53,630	1	$53,630	1/31/1998	Krasnoyarsk
UDMH Accessories Unit 2	$80,883	1	$80,883	1/31/1998	Krasnoyarsk
UDMH Plant - Hydrogen Sys. Unit 1	$3,166,784	1	$3,166,784	10/29/1998	Krasnoyarsk
UDMH Plant - Hydrogen Sys. Unit 2	$3,164,016	1	$3,164,016	10/29/1998	Krasnoyarsk
UDMH System	$4,286,753	2	$8,573,506	10/13/1997	Krasnoyarsk
Project: Liquid Propellant ICBM and Silo Elimination 1.1.6			**$45,575,443**		
Ambulance	$52,415	1	$52,415	4/10/1998	Surovatikha
Analyzer, Gas	$5,197	2	$10,394	7/25/1997	Surovatikha
Analyzer, Nitrogen Dioxide	$3,012	2	$6,024	7/25/1997	Surovatikha
Baler	$362,230	1	$362,230	8/31/1995	Surovatikha
Baler	$362,230	1	$362,230	9/21/1995	Pibanshur
Boiler Unit	$681,300	1	$681,300	11/2/2000	Surovatikha
Bulldozer	$455,035	1	$455,035	9/3/1994	Surovatikha
Bulldozer	$455,035	1	$455,035	9/6/1994	Piban'shur
Bulldozer	$455,035	1	$455,035	9/7/1994	Surovatikha
Container, Intermodal	$54,068	8	$432,548	4/19/1995	Russia
Container, Intermodal	$38,874	28	$1,088,464	4/19/1995	Russia
Container, Intermodal	$38,874	90	$3,498,636	6/30/1995	Russia
Container, Intermodal	$54,068	30	$1,622,054	8/15/1995	Russia
Container, Intermodal	$38,874	75	$2,915,530	8/15/1995	Russia
Container, Intermodal	$38,874	77	$2,993,277	11/4/1995	Russia
Container, Intermodal	$54,068	106	$5,731,208	11/4/1995	Russia

Item Name	Unit Price	Quantity	Total Value	Arrival Date	Location
Container, Intermodal	$54,068	12	$648,816	12/1/1995	Russia
Container, Intermodal	$38,874	22	$855,228	12/1/1995	Russia
Container, Intermodal	$54,068	8	$432,544	2/3/1996	Russia
Container, Intermodal	$38,874	34	$1,321,716	2/3/1996	Russia
Container, Intermodal	$42,500	10	$425,000	8/6/1996	Russia
Container, Intermodal	$42,500	30	$1,275,000	8/7/1996	Russia
Container, Intermodal	$59,100	40	$2,364,000	8/14/1996	Russia
Container, Intermodal	$72,860	50	$3,643,022	10/3/1996	Russia
Container, Intermodal	$59,100	12	$709,200	10/3/1996	Russia
Container, Intermodal	$59,100	11	$650,100	10/7/1996	Russia
Container, Intermodal	$42,500	10	$425,000	10/18/1996	Russia
Container, Intermodal	$59,100	17	$1,004,700	10/18/1996	Russia
Crane	$391,735	1	$391,735	8/2/1995	Turinskaya
Crane	$391,735	1	$391,735	8/26/1995	Ilyino
Crane	$391,735	1	$391,735	8/29/1995	Moshkovo
Crane	$391,735	1	$391,735	9/1/1995	Mulyanka
Crane	$391,735	1	$391,735	9/8/1995	Naro-Fominsk
Crane	$391,735	1	$391,735	9/9/1995	Tambov
Crane	$391,735	1	$391,735	9/22/1995	Vanino
Crane	$370,745	1	$370,745	4/7/1995	Surovatikha
Crane	$370,745	1	$370,745	4/7/1995	Surovatikha
Crane	$370,745	1	$370,745	4/8/1995	Piban'shur
Cutter, Plasma	$15,200	1	$15,200	9/15/1994	Surovatikha
Cutter, Plasma	$15,200	1	$15,200	9/16/1994	Piban'shur
Cutter, Plasma	$15,200	1	$15,200	10/22/1994	Uzhur
Engine, Yard	$560,000	1	$560,000	2/24/1998	Surovatikha
Equipment, Ventilation	$2,577	1	$2,577.37	8/23/1995	Uzhur
Equipment, Ventilation	$2,577	3	$7,732.11	8/23/1995	Piban'shur
Equipment, Ventilation	$2,577	3	$7,732.11	8/23/1995	Surovatikha
Fax Machine	$1,345	1	$1,345	1/17/1997	Ilyino
Fax Machine	$1,345	1	$1,345	1/17/1997	Moshkovo
Fax Machine	$1,345	1	$1,345	1/17/1997	Mulyanka
Fax Machine	$1,345	1	$1,345	1/17/1997	Tambov
Fax Machine	$1,345	1	$1,345	1/17/1997	Vanino
Fax Machine	$1,345	1	$1,345	1/17/1997	Perm
Fax Machine	$1,345	1	$1,345	1/17/1997	Piban'shur
Fax Machine	$1,345	1	$1,345	1/17/1997	Surovatikha
Fax Machine	$1,345	1	$1,345	1/17/1997	Uzhur
Fax Machine	$1,345	5	$6,725	1/17/1997	Moscow
Fire truck	$206,980	1	$206,980	2/2/1998	Surovatikha
Hood, Welder's Air Fed	$895	30	$26,850	7/25/1997	Surovatikha
Loader, Bobcat	$26,448	1	$26,448	12/8/1997	Surovatikha
Loader, Bobcat	$26,573	1	$26,573	12/8/1997	Surovatikha
Railcar	$38,300	10	$383,000	3/30/1995	Russia
Railcar	$38,300	25	$957,500	4/18/1995	Russia
Railcar	$38,300	25	$957,500	5/12/1995	Russia
Railcar	$38,300	25	$957,500	5/15/1995	Russia
Railcar	$38,300	15	$574,500	5/18/1995	Russia
Railcar	$38,300	6	$229,800	11/13/1995	Russia
Railcar	$38,300	4	$153,200	11/14/1995	Russia
Railcar	$38,300	4	$153,200	11/15/1995	Russia
Railcar	$88,300	1	$88,300	1/31/1996	Russia
Railcar	$38,300	10	$383,000	1/31/1996	Russia
Saw, Cutoff	$673	30	$20,204	7/25/1997	Surovatikha
Tool Carrier, Integrated	$144,337	1	$144,337	8/6/1995	Piban'shur
Tool Carrier, Integrated	$144,337	1	$144,337	8/7/1995	Surovatikha
Tool Carrier, Integrated	$144,337	1	$144,337	8/8/1995	Surovatikha
Tool, Hydraulic	$7,559	2	$15,118	9/30/1997	Surovatikha
Tractor	$76,302	1	$76,302	9/23/1997	Surovatikha
Tractor	$77,027	1	$77,027	7/19/1998	Piban'shur
Tractor	$77,027	1	$77,027	11/24/1998	Surovatikha
Trailer	$16,544	1	$16,544	9/23/1997	Surovatikha
Trailer, Lowbed Drop Deck	$56,976	1	$56,976	10/27/1998	Piban'shur
Trailer, Lowbed Drop Deck	$56,976	1	$56,976	12/1/1998	Surovatikha
Truck	$124,657	2	$249,314	8/17/1998	Surovatikha
Project: SLBM Launcher Elimination/SSBN Dismantlement – 1.1.7			**$26,425,845**		
Air Compressor	$18,594	5	$92,970	10/2/1998	Bolshoi Kamen
Air Compressor	$18,594	3	$55,782	10/5/1998	Severodvinsk

Item Name	Unit Price	Quantity	Total Value	Arrival Date	Location
Air Compressor	$18,594	3	$55,782	10/29/1998	Murmansk
Baler	$362,230	1	$362,230	12/7/1995	Bolshoi Kamen
Baler Shear	$3,357,609	1	$3,357,609	8/5/1995	Bolshoi Kamen
Baler Shear	$3,357,609	1	$3,357,609	10/23/1995	Severodvinsk
Baler Shear	$3,357,609	1	$3,357,609	1/17/1996	Murmansk
Cable Chopper	$507,230	1	$507,230	11/4/1994	Bolshoi Kamen
Cable Chopper	$507,230	1	$507,230	11/10/1994	Murmansk
Cable Chopper	$507,230	1	$507,230	11/22/1994	Severodvinsk
Computers, Printers	$36,018	1	$36,018	4/13/1999	Moscow
Container	$5,237	2	$10,474	2/12/1998	Severodvinsk
Conveyer	$191,769	1	$191,769	6/13/1996	Bolshoi Kamen
Conveyer	$191,769	1	$191,769	7/30/1996	Severodvinsk
Conveyer	$191,769	1	$191,769	8/2/1996	Murmansk
Crane	$835,000	1	$835,000	1/17/1995	Severodvinsk
Crane	$271,888	1	$271,888	3/7/1995	Bolshoi Kamen
Crane	$271,888	1	$271,888	3/15/1995	Severodvinsk
Crane	$271,888	1	$271,888	3/16/1995	Murmansk
Crane	$417,785	1	$417,785	8/7/1998	Murmansk
Crane	$417,785	3	$1,253,355	10/8/1998	Bolshoi Kamen
Crane, Demag	$1,241,721	1	$1,241,721	11/12/2001	Bolshoi Kamen
Cutter, Plasma	$15,200	2	$30,400	9/9/1994	Bolshoi Kamen
Cutter, Plasma	$15,200	3	$45,600	9/24/1994	Severodvinsk
Cutter, Plasma	$15,200	1	$15,200	9/25/1994	Murmansk
Cylinder, Gas	$42,098	1	$42,098	8/26/1998	Bolshoi Kamen
Equipment, Ventilation	$2,460	20	$49,200	9/9/1994	Bolshoi Kamen
Equipment, Ventilation	$2,460	30	$73,800	9/24/1994	Severodvinsk
Equipment, Ventilation	$2,460	10	$24,600	9/25/1994	Murmansk
Excavator	$761,441	1	$761,441	4/21/1995	Bolshoi Kamen
Excavator	$919,766	1	$919,766	4/21/1995	Bolshoi Kamen
Excavator	$761,441	1	$761,441	8/1/1995	Murmansk
Excavator	$761,441	1	$761,441	10/15/1995	Severodvinsk
Excavator	$788,590	1	$788,590	7/30/1996	Severodvinsk
Excavator with Attachments	$968,947	2	$1,937,894	10/15/1995	Bolshoi Kamen
Excavator with Attachments	$880,860	1	$880,860	8/2/1996	Murmansk
Fax Machine	$1,345	1	$1,345	1/17/1997	Murmansk
Fax Machine	$1,345	1	$1,345	1/17/1997	Severodvinsk
Fax Machine	$1,345	1	$1,345	1/17/1997	Bolshoi Kamen
Forklift	$43,095	2	$86,190	3/12/1998	Severodvinsk
Forklift	$43,095	2	$86,190	3/13/1998	Bolshoi Kamen
Forklift	$43,095	2	$86,190	4/3/1998	Murmansk
Fuel Truck	$76,446	1	$76,446	11/5/1998	Bolshoi Kamen
Grapple	$29,000	1	$29,000	10/2/1998	Bolshoi Kamen
Grapple	$36,685	1	$36,685	2/26/1999	Murmansk
Hood, Welder's Air Fed	$612	20	$12,239	9/9/1994	Bolshoi Kamen
Hood, Welder's Air Fed	$612	30	$18,359	9/24/1994	Severodvinsk
Hood, Welder's Air Fed	$612	10	$6,120	9/25/1994	Murmansk
Hood, Welder's Air Fed	$603	50	$30,150	1/27/1998	Severodvinsk
Hood, Welder's Air Fed	$635	20	$12,700	10/29/1998	Murmansk
Magnet	$95,461	3	$286,383	11/6/1998	Bolshoi Kamen
Magnet	$54,382	1	$54,382	2/26/1999	Murmansk
Radio	$606	22	$13,335	3/11/1999	Amsterdam
Radio, 16VHF Channel	$570	20	$11,399	10/29/1998	Severodvinsk
Sawzalls	$1,667	50	$83,334	10/2/1998	Bolshoi Kamen
Sawzalls	$1,667	50	$83,334	10/5/1998	Severodvinsk
Sawzalls	$1,667	50	$83,334	2/26/1999	Murmansk
Scale, Track, Railroad	$16,010	1	$16,010	10/5/1998	Severodvinsk
Scale, Truck	$32,445	1	$32,445	2/27/1998	Bolshoi Kamen
Scaler	$566	18	$10,179	1/14/1998	Bolshoi Kamen
Scaler	$566	18	$10,179	1/27/1998	Severodvinsk
Shear, Hydraulic	$11,600	1	$11,600	10/2/1998	Bolshoi Kamen
Shear, Hydraulic	$11,600	1	$11,600	10/5/1998	Severodvinsk
Shear, Hydraulic	$11,600	1	$11,600	10/29/1998	Murmansk
System, Cutting Torch	$1,072	80	$85,760	1/14/1998	Bolshoi Kamen
Torch	$3,965	10	$39,650	10/29/1998	Murmansk
Torch, Cutting	$1,095	10	$10,950	10/29/1998	Murmansk
Tractor	$78,460	2	$156,921	6/24/1998	Bolshoi Kamen
Tractor	$78,460	1	$78,460	7/19/1998	Severodvinsk
Tractor	$82,977	1	$82,977	10/29/1998	Murmansk
Tractor	$82,977	1	$82,977	9/8/1999	Murmansk

Item Name	Unit Price	Quantity	Total Value	Arrival Date	Location
Trailer	$20,856	2	$41,713	9/28/1998	Bolshoi Kamen
Trailer	$31,610	3	$94,831	9/28/1998	Bolshoi Kamen
Trailer	$32,237	2	$64,474	1/24/1999	Murmansk
Trailer, Roll-off	$44,778	1	$44,778	10/21/1998	Severodvinsk
Project: Low Level Radioactive Waste Volume Reduction - 1.1.8			No GFE equipment with a total value ≥ $5,000 has been provided under this project.		
Project: Spent Naval Fuel Disposition - 1.1.9			No GFE equipment with a total value ≥ $5,000 has been provided under this project.		
Project: Liquid Propellant SLBM Elimination 1.1.10			**$2,594,168**		
Baler	$362,230	1	$362,230	10/30/1995	Sergiev Posad
Baler	$504,855	1	$504,855	3/7/2000	Krasnoyarsk
Tractor	$77,027	1	$77,027	7/27/1998	Krasnoyarsk
Crane	$370,745	1	$370,745	4/20/1995	Krasnoyarsk
Bulldozer	$455,035	1	$455,035	10/22/1994	Krasnoyarsk
Trailer, Lowbed Drop Deck	$56,976	1	$56,976	10/31/1998	Krasnoyarsk
Excavator	$744,368	1	$744,368	11/9/1995	Surovatikha
Cutter, Plasma	$15,200	1	$15,200	9/14/1994	Sergiev Posad
Equipment, Ventilation	$2,577.00	3	$7,732.11	8/23/1995	Sergiev Posad
Project: Chemical Weapons Destruction Facility – 1.2.1			**$5,493,311**		
Atomic Emission Detector	$327,196	1	$327,196	9/20/1995	Saratov
Atomic Emission Detector	$356,736	1	$356,736	9/27/1995	Moscow
Computer, Office Equipment	$37,637	1	$37,637	4/1/1995	Moscow
Computer, Office Equipment	$43,863	1	$43,863	4/1/1995	Moscow
Computer, Office Equipment	$23,500	2	$47,000	4/1/1995	Moscow
Copier with Sorter and Finisher	$13,018	6	$78,108	4/1/1995	Moscow
Dual Flame, Lab Chemical Station	$220,675	1	$220,675	9/20/1995	Saratov
Dual Flame, Lab Chemical Station	$222,515	1	$222,515	9/27/1995	Moscow
Dual, Hewlett-P	$253,152	1	$253,152	9/20/1995	Saratov
Dual, Hewlett-P	$258,160	1	$258,160	9/20/1995	Saratov
EC Detector	$294,608	1	$294,608	9/20/1995	Saratov
EC Detector	$295,528	1	$295,528	9/27/1995	Moscow
Electrophoresis, Capillary	$120,879	1	$120,879	9/20/1995	Saratov
Electrophoresis, Capillary	$120,879	1	$120,879	9/27/1995	Moscow
Equipment, Analytical	$12,000	1	$12,000	9/20/1995	Saratov
Equipment, Analytical	$12,000	1	$12,000	10/27/1995	Moscow
Equipment, Analytical	$31,371	1	$31,371	1/23/1996	Moscow
Equipment, Analytical Lab	$42,448	1	$42,448	1/23/1996	Moscow
Equipment, Analytical Lab	$27,200	1	$27,200	6/4/1996	Moscow
Kit, Medical	$17,500	1	$17,500	11/3/1995	Saratov
Laboratory Chemical Station	$21,238	3	$63,714	8/29/1996	Moscow
Mass Selective Detector	$291,775	1	$291,775	9/20/1995	Saratov
Mass Selective Detector	$324,594	1	$324,594	9/20/1995	Saratov
Mass Selective Detector	$303,413	1	$303,413	9/27/1995	Moscow
Mass Spectrometer	$93,103	1	$93,103	8/29/1996	Moscow
Mass Spectrometer	$93,103	2	$186,206	8/29/1996	Moscow
System, UV-VIS	$45,375	1	$45,375	9/20/1995	Saratov
System, UV-VIS	$45,375	1	$45,375	9/27/1995	Moscow
System, Balance	$12,724	2	$25,448	11/8/1995	Moscow
System, Balance	$12,724	2	$25,448	11/30/1995	Saratov
System, Chemical Agent	$21,831	2	$43,662	11/8/1995	Moscow
System, Chemical Agent	$32,746	3	$98,238	11/30/1995	Saratov
System, Liquid Chromatographic	$196,871	1	$196,871	9/20/1995	Saratov
System, Liquid Chromatographic	$211,591	1	$211,591	9/27/1995	Moscow
Vehicle, Van	$239,681	3	$719,043	8/29/1996	Moscow
Project: Chemical Agent Analytical Monitoring – 1.2.2			**$2,725,164**		
Elevator System	$59,800	1	$59,800	12/22/1998	Moscow
Elevator System	$59,800	1	$59,800	2/2/1999	Moscow
Laboratory Furniture	$257,405	1	$257,405	6/10/1999	Moscow
Laboratory Furniture	$302,349	1	$302,349	6/10/1999	Moscow
Material, Construction	$13,574	1	$13,574	4/1/1998	Moscow
Material, Construction	$2	7,840	$17,091	4/1/1998	Moscow
Material, Construction	$11,269	1	$11,269	4/3/1998	Moscow
Material, Construction	$16,522	1	$16,522	4/3/1998	Moscow
Material, Construction	$29,438	1	$29,438	4/3/1998	Moscow
Material, Construction	$112,477	1	$112,477	4/3/1998	Moscow
Material, Construction	$44,022	1	$44,022	4/8/1998	Moscow

Item Name	Unit Price	Quantity	Total Value	Arrival Date	Location
Material, Construction	$7,179	1	$7,179	5/14/1998	Moscow
Material, Construction	$48,578	1	$48,578	5/14/1998	Moscow
Material, Construction	$11,147	1	$11,147	7/6/1998	Moscow
Material, Construction	$11,384	1	$11,384	7/6/1998	Moscow
Material, Construction	$35,099	1	$35,099	7/6/1998	Moscow
Material, Construction	$46,663	1	$46,663	7/6/1998	Moscow
Material, Construction	$8,640	1	$8,640	7/31/1998	Moscow
Material, Construction	$38,612	1	$38,612	7/31/1998	Moscow
Material, Construction	$13,057	1	$13,057	10/26/1998	Moscow
Material, Construction	$17,161	1	$17,161	10/26/1998	Moscow
Material, Construction	$51,405	1	$51,405	10/26/1998	Moscow
Material, Construction	$66,147	1	$66,147	10/26/1998	Moscow
Material, Construction	$80,813	1	$80,813	10/26/1998	Moscow
Material, Construction	$7,488	1	$7,488	12/8/1998	Moscow
Material, Construction	$7,596	1	$7,596	12/8/1998	Moscow
Material, Construction	$7,752	1	$7,752	12/8/1998	Moscow
Material, Construction	$11,531	1	$11,531	12/8/1998	Moscow
Material, Construction	$24,668	1	$24,668	12/8/1998	Moscow
Material, Construction	$31,913	1	$31,913	12/8/1998	Moscow
Material, Construction	$54,792	1	$54,792	12/8/1998	Moscow
Material, Construction	$33,133	1	$33,133	6/10/1999	Moscow
Material, Construction	$80,356	1	$80,356	6/10/1999	Moscow
Material, Construction	$13,112	1	$13,112	6/16/1999	Moscow
Material, Construction	$90,000	1	$90,000	6/21/1999	Moscow
Material, Construction	$36,849	1	$36,849	7/1/1999	Moscow
Material, Construction	$14,917	1	$14,917	8/24/1999	Moscow
Material, Construction	$28,853	1	$28,853	8/24/1999	Moscow
Material, Construction	$166,398	1	$166,398	8/24/1999	Moscow
Material, Renovation	$138,770	1	$138,770	2/10/1999	Moscow
Material, Renovation	$37,316	1	$37,316	2/16/1999	Moscow
Material, Renovation	$81,993	1	$81,993	2/16/1999	Moscow
Material, Renovation	$133,350	1	$133,350	2/16/1999	Moscow
Material, Renovation	$140,735	1	$140,735	2/16/1999	Moscow
Material, Renovation	$151,994	1	$151,994	5/14/1999	Moscow
Material, Renovation	$72,016	1	$72,016	3/16/1999	Moscow
Project: Chemical Weapons Production Facility Demilitarization - 1.2.3			No GFE equipment with a total value $\geq$ $5,000 has been provided under this project.		
Project: Automated Inventory Control & Management System – 2.1.1*			**$13,607,826**		
AICMS Computer Equipment	$55,400	1	$55,400	11/3/2000	Sergiev Posad
AICMS Computer Equipment	$803,402	1	$803,402	11/3/2000	Sergiev Posad
AICMS Computer Equipment	$486,585	1	$486,585	11/3/2000	Sergiev Posad
AICMS Computer Equipment	$1,180,832	1	$1,180,832	12/1/2000	Sergiev Posad
AICMS Computer Equipment	$134,576	1	$134,576	12/9/2000	Sergiev Posad
AICMS Computer Equipment	$9,265	1	$9,265	12/9/2000	Sergiev Posad
AICMS Computer Equipment	$74,484	1	$74,484	12/9/2000	Sergiev Posad
AICMS Computer Equipment	$1,210,365	1	$1,210,365	2/1/2001	Sergiev Posad
Computer Peripheral Equipment	$6,485	1	$6,485	3/23/2001	Sergiev Posad
AICMS Production System	$2,549,832	1	$2,549,832	9/24/1999	Sergiev Posad
AICMS Production System	$510,244	1	$510,244	8/28/2000	Sergiev Posad
AICMS Production system	$247,047	1	$247,047	7/28/2000	Sergiev Posad
AICMS Production system	$191,616	1	$191,616	5/24/2000	Sergiev Posad
AICMS Production system	$295,710	1	$295,710	6/28/2000	Sergiev Posad
AICMS Production system	$35,559	1	$35,559	2/23/1999	Sergiev Posad
AICMS Production system	$34,327	1	$34,327	8/2/1999	Sergiev Posad
AICMS Production system	$23,310	1	$23,310	9/12/2000	Sergiev Posad
AICMS Prototype System	$64,881	1	$64,881	1/22/1996	Mytischi
AICMS Interim System-50PCs	$580,551	1	$580,551	5/18/1998	Sergiev Posad
AICMS Prototype System	$1,552,161	1	$1,552,161	9/26/1996	Mytischi
AICMS Interim Sys- 2nd 50PCs	$505,305	1	$505,305	4/19/1999	Sergiev Posad
Oracle Software	$836,434	1	$836,434	6/6/1996	Mytischi
Oracle Software-Enterprise Ed.	$2,204,995	1	$2,204,995	3/24/2000	Mytischi
HP Scanners, 6100C	$723	20	$14,460	7/10/1998	Sergiev Posad
Project: Guard Force Equipment and Training - 2.1.2			**$7,908,917**		
Firearms Training System	$210,012	3	$630,035	7/17/2002	Sergiev Posad
Firing Range Control Console	$138,490	1	$138,490	7/25/2002	Moscow
Small Arms Training Systems	$210,012	3	$630,035	7/17/2002	Sergiev Posad
Small Arms Training Systems	$210,012	4	$840,046	7/31/2002	Sergiev Posad

Item Name	Unit Price	Quantity	Total Value	Arrival Date	Location
Small Arms Training Systems	$210,012	4	$840,046	8/05/2002	Sergiev Posad
Small Arms Training Systems	$210,012	4	$840,046	8/19/2002	Sergiev Posad
Small Arms Training Systems	$210,012	8	$1,680,092	8/21/2002	Sergiev Posad
Small Arms Training Systems	$210,012	4	$840,046	9/12/2002	Sergiev Posad
Small Arms Training Systems	$210,012	7	$1,470,081	9/18/2002	Sergiev Posad
Project: Nuclear Weapons Storage Site Support - 2.1.3			**$7,917,960**		
ACL-3-40-17 Fire Trucks	$126,622	10	$1,266,223	1/25/2002	Torzhok
ACL-3-40-17 Fire Trucks	$126,622	3	$379,867	4/3/2002	Sergiev Posad
Boiler, Modular	$91,474	3	$274,422	5/22/2002	Biysk
Boiler, Modular	$139,022	2	$278,044	5/22/2002	Biysk
Boiler, Modular	$150,066	2	$300,133	5/22/2002	Biysk
Boiler, Modular	$197,667	3	$593,001	5/22/2002	Biysk
Boilers	$44,306	1	$44,306	12/27/2001	Biysk
Boilers	$109,066	2	$218,132	12/27/2001	Biysk
Bulldozer	$220,068	1	$220,068	10/31/2001	Chelyabinskaya Oblast
Bulldozer	$365,796	1	$365,796	11/17/2001	Chelyabinskaya Oblast
Cement Mixer	$1,621	20	$32,425	12/27/2001	Sergiev Posad
Chain Saws, Gas	$11,674	1	$11,674	10/4/2001	Sergiev Posad
DT-75 PPC Bulldozer w/attachments	$10,980	10	$109,800	4/5/2002	Sergiev Posad
Excavator	$89,443	1	$89,443	11/30/2001	Tver
Fire truck	$39,569	25	$989,237	12/11/2001	Vargashi
Fire truck	$126,622	7	$886,356	12/17/2001	Sergiev Posad
Gulf X-ray equipment	$5,320	1	$5,320	5/6/2002	St. Petersburg
Lipetsk Excavators	$8,000	15	$119,999	2/21/2002	Sergiev Posad
OES Analyzer	$135,149	1	$135,149	2/19/2002	St. Petersburg
Partner Saws	$612	47	$28,758	1/14/2002	Sergiev Posad
Sand Spreader	$1,125	20	$22,494	12/27/2001	Sergiev Posad
Snow Blower	$1,256	20	$25,127	12/27/2001	Sergiev Posad
Spectrometer, Base Detector	$345,500	1	$345,500	11/27/2001	St. Petersburg
Testing Instrument, Shimadzu	$303,250	1	$303,250	3/14/2002	St. Petersburg
Tractor	$297,838	1	$297,838	11/15/2001	Sergiev Posad
Testing Equipment	$160,953	1	$160,953	1/17/2001	St. Petersburg
HAZMAT for Test Equipment	$10,760	1	$10,760	6/6/2001	Moscow
Laboratory Equipment	$118,151	1	$118,151	8/17/2001	St. Petersburg
Laboratory Equipment	$59,500	1	$59,500	9/20/2001	St. Petersburg
X-ray Spectrometer	$226,235	1	$226,235	9/20/2001	St. Petersburg
Project: Security Assessment, Training, and Logistics - 2.1.4			No GFE equipment with a total value ≥ $5,000 has been provided under this project		
Site Security Enhancements 2.1.5**			**$26,398,916**		
Cable Sets	$24,644	20	$492,880	11/26/1999	12th GUMO
Cable Sets	$24,644	20	$492,880	12/16/1999	12th GUMO
Cable Sets	$24,644	13	$320,372	1/12/2000	12th GUMO
Cable Sets	$2,071	20	$41,416	3/5/2001	Sergiev Posad
Cable Sets	$8,818	60	$531,734	3/20/2001	Sergiev Posad
Cable Sets	$2,456	283	$695,361	3/28/2001	Sergiev Posad
Cable Sets	$7,663	83	$638,362	4/3/2001	Sergiev Posad
Cable Sets	$3,332	140	$465,859	4/12/2001	Sergiev Posad
Cable Sets	$2,368	203	$480,875	4/19/2001	Sergiev Posad
Cable Sets	$520	750	$389,848	5/16/2001	Sergiev Posad
Cable Sets	$3,838	19	$72,917	5/24/2001	Sergiev Posad
Cable Trays	$9,682	36	$348,552	3/28/2001	Sergiev Posad
Cable Trays	$1,191	18	$21,436	4/12/2001	Sergiev Posad
Cable Trays	$9,682	18	$174,276	4/19/2001	Sergiev Posad
Cable Trays	$9,682	49	$474,418	5/16/2001	Sergiev Posad
Cable Trays	$9,682	2	$19,364	5/24/2001	Sergiev Posad
Conduit	$30,081	20	$601,620	10/11/1999	12th GUMO
Conduit	$30,081	22	$661,782	10/28/1999	12th GUMO
Conduit	$30,081	3	$90,243	11/26/1999	12th GUMO
Conduit	$30,081	9	$270,729	12/16/1999	12th GUMO
Conduit	$30,081	12	$360,972	1/12/2000	12th GUMO
Conduit	$30,081	12	$360,972	1/27/2000	12th GUMO
Conduit	$30,081	15	$451,215	2/6/2000	12th GUMO
Conduit	$30,081	27	$812,187	3/14/2000	12th GUMO
Conduit	$30,081	3	$90,243	3/31/2000	12th GUMO
Engineering Fencing, IZP2-04	$89,033	5	$445,165	10/11/2001	12th GUMO
Engineering Fencing, IZP2-04	$89,033	7	$623,231	11/13/2001	12th GUMO
Engineering Fencing, IZP-2-05	$9,360	24	$224,640	10/11/1999	12th GUMO
Engineering Fencing, IZP-2-05	$9,360	22	$205,920	11/9/1999	12th GUMO

Item Name	Unit Price	Quantity	Total Value	Arrival Date	Location
Engineering Fencing, IZP-2-05	$9,360	22	$205,920	12/9/1999	12th GUMO
Engineering Fencing, IZP-2-05	$9,360	22	$205,920	1/14/2000	12th GUMO
Engineering Fencing, IZP-2-05	$9,360	22	$205,920	2/11/2000	12th GUMO
Engineering Fencing, IZP-2-05	$9,360	23	$215,280	3/13/2000	12th GUMO
Gate-locks	$464	84	$39,002	8/16/2000	12th GUMO
Gates	$2,952	48	$141,696	10/11/1999	12th GUMO
Gates	$2,952	44	$129,888	11/9/1999	12th GUMO
Gates	$2,697	14	$37,758	11/26/1999	12th GUMO
Gates	$2,872	64	$183,828	12/9/1999	12th GUMO
Gates	$2,884	60	$173,040	1/14/2000	12th GUMO
Gates	$2,872	64	$183,828	2/11/2000	12th GUMO
Gates	$2,875	66	$189,732	3/13/2000	12th GUMO
Gates	$2,952	80	$236,160	7/7/2000	12th GUMO
Higher Level SOS-1-VU	$20,053	5	$100,265	2/11/2000	12th GUMO
Higher Level SOS-1-VU	$20,053	15	$300,795	3/13/2000	12th GUMO
Higher Level SOS-1-VU	$20,053	4	$80,212	4/6/2000	12th GUMO
Higher Level SOS-1-VU	$20,053	16	$320,848	7/7/2000	12th GUMO
Higher Level SOS-1-VU	$20,053	33	$661,749	8/16/2000	12th GUMO
Protva System	$13,238	50	$661,880	10/19/1999	12th GUMO
Protva System	$13,247	50	$662,360	11/17/1999	12th GUMO
Protva System	$13,247	50	$662,360	12/15/1999	12th GUMO
Protva System	$12,907	58	$748,600	1/17/2000	12th GUMO
Road Obstacle, IZP-1	$488	96	$46,848	10/11/1999	12th GUMO
Road Obstacle, IZP-1	$488	88	$42,944	11/9/1999	12th GUMO
Road Obstacle, IZP-1	$488	36	$17,568	12/9/1999	12th GUMO
Road Obstacle, IZP-1	$488	52	$25,376	12/9/1999	12th GUMO
Road Obstacle, IZP-1	$488	88	$42,944	1/14/2000	12th GUMO
Road Obstacle, IZP-1	$488	36	$17,568	2/11/2000	12th GUMO
Road Obstacle, IZP-1	$488	52	$25,376	2/11/2000	12th GUMO
Road Obstacle, IZP-1	$488	28	$13,664	3/13/2000	12th GUMO
Road Obstacle, IZP-1	$488	64	$31,232	3/13/2000	12th GUMO
Snow blower	$51,927	10	$519,270	12/14/2000	Sergiev Posad
Snow blower	$62,942	11	$692,362	1/13/2001	Sergiev Posad
Snow blower	$54,090	16	$865,440	3/1/2001	Sergiev Posad
SOS-1DK	$6,372	30	$191,160	11/10/2000	Sergiev Posad
SOS-1-05 System	$67,479	2	$134,958	11/26/1999	12th GUMO
SOS-1-05 System	$67,479	5	$337,395	11/26/1999	12th GUMO
SOS-1-05 System	$67,479	2	$134,958	12/9/1999	12th GUMO
SOS-1-05 System	$67,479	8	$539,832	12/9/1999	12th GUMO
SOS-1-05 System	$67,479	1	$67,479	1/14/2000	12th GUMO
SOS-1-05 System	$67,479	8	$539,832	1/14/2000	12th GUMO
SOS-1-05 System	$67,479	10	$674,790	2/11/2000	12th GUMO
SOS-1-05 System	$67,479	10	$674,790	3/13/2000	12th GUMO
SOS-1-05 System	$67,479	10	$674,790	4/6/2000	12th GUMO
SOS-1-05 System	$67,479	10	$674,790	5/16/2000	12th GUMO
SOS-1-05 System	$67,479	8	$539,832	6/16/2000	12th GUMO
Surveillance System	$6,009	20	$120,182	2/8/2001	Sergiev Posad
Surveillance System	$6,009	40	$240,364	3/4/2001	Sergiev Posad
Surveillance System	$6,009	20	$120,182	11/16/1999	12th GUMO
Surveillance System	$9,455	40	$378,191	8/6/2001	Sergiev Posad
Surveillance System	$9,455	40	$378,191	3/1/2000	12th GUMO
Surveillance System	$9,455	40	$378,191	7/4/2000	12th GUMO
Wicket-Pentstock	$1,266	5	$6,330	11/26/1999	12th GUMO
Wicket-Pentstock	$1,266	8	$10,128	12/9/1999	12th GUMO
Wicket-Pentstock	$1,266	8	$10,128	1/14/2000	12th GUMO
Wicket-Pentstock	$1,266	10	$12,660	2/11/2000	12th GUMO
Wicket-Pentstock	$1,266	10	$12,660	3/13/2000	12th GUMO
Project: Nuclear Weapons Transportation - 2.2.1			No GFE equipment with a total value ≥ $5,000 has been provided under this project.		
Project: Supercontainers – 2.2.2*			**$19,926,451**		
Abnormal Events Lifting Beam Kit	$26,681	10	$266,814	3/21/2000	Sergiev Posad
Blocking and Bracing Kits	$25,452	1	$25,452	3/24/1999	Sergiev Posad
Chain, Lashing	$259	900	$232,695	8/27/1997	Sergiev Posad
Chain, Lashing	$259	1,200	$310,260	10/7/1997	Sergiev Posad
Chain, Lashing	$259	1,200	$310,260	10/8/1997	Sergiev Posad
Device, Spring for Lashing Chains	$121,701	1	$121,701	4/1/1998	Sergiev Posad
Earth Cable	$51	165	$8,475	12/17/1997	Sergiev Posad
Kit, Supercontainer Improvement	$108,000	1	$108,000	10/7/1997	Sergiev Posad
Supercontainer	$122,662	14	$1,717,266	2/10/1997	Sergiev Posad

Item Name	Unit Price	Quantity	Total Value	Arrival Date	Location
Supercontainer	$122,662	24	$2,943,885	6/8/1997	Sergiev Posad
Supercontainer	$122,662	24	$2,943,885	7/1/1997	Sergiev Posad
Supercontainer	$122,662	24	$2,943,885	8/6/1997	Sergiev Posad
Supercontainer	$122,662	24	$2,943,885	8/27/1997	Sergiev Posad
Supercontainer	$122,662	24	$2,943,885	9/7/1997	Sergiev Posad
Supercontainer	$122,662	16	$1,962,590	10/7/1997	Sergiev Posad
Supercontainer	$122,662	1	$122,662	2/4/1998	Sergiev Posad
Tool Kit, Ancillary	$2,606	8	$20,851	12/17/1997	Sergiev Posad
Project: Emergency Support Equipment – 2.2.2			**$6,871,677**		
Base Station	$3,321	6	$19,926	11/11/1998	St. Petersburg
Battery Charger	$689	10	$6,890	11/11/1998	St. Petersburg
Chair	$63	84	$5,292	11/12/1998	St. Petersburg
Copier	$13,273	1	$13,273	4/29/1998	St. Petersburg
Copier	$13,384	1	$13,384	11/11/1998	St. Petersburg
Equipment Case 1	$25,000	1	$25,000	11/12/1998	St. Petersburg
Equipment, Emergency	$916,000	1	$916,000	8/30/1996	St. Petersburg
Equipment, Emergency	$916,000	1	$916,000	11/14/1996	St. Petersburg
Equipment, Emergency	$916,000	2	$1,832,000	3/18/1997	St. Petersburg
Equipment, Emergency	$916,000	1	$916,000	3/25/1997	St. Petersburg
Exiter, Vibro - Acoustics System	$12,940	1	$12,940	8/3/1998	St. Petersburg
Fiberscope	$14,300	1	$14,300	11/12/1998	St. Petersburg
Finder, Faul	$5,500	1	$5,500	11/12/1998	St. Petersburg
INMARSAT Terminals	$90,000	12	$1,080,000	9/13/1999	St. Petersburg
Inventory Analysis System	$331,926	1	$331,926	3/13/1998	St. Petersburg
Kit, Fusion Splice	$9,500	1	$9,500	11/12/1998	St. Petersburg
Lens, Zoom	$5,148	1	$5,148	2/15/1997	St. Petersburg
Light, Stand	$985	10	$9,850	11/12/1998	St. Petersburg
Module, Base Control	$40,000	1	$40,000	11/12/1998	St. Petersburg
Module, Site Control	$45,000	1	$45,000	11/12/1998	St. Petersburg
Monitor	$2,611	2	$5,222	4/29/1998	St. Petersburg
Printer	$5,503	2	$11,006	4/29/1998	St. Petersburg
Projector, Infocus 720	$5,158	1	$5,158	4/29/1998	St. Petersburg
Radiation Detection Equipment	$41,560	1	$41,560	5/8/1998	St. Petersburg
Radiation Detection Equipment	$55,194	1	$55,194	5/8/1998	St. Petersburg
Radiation Detection Equipment	$63,134	1	$63,134	5/8/1998	St. Petersburg
Radiation Detection Equipment	$61,134	2	$122,268	5/8/1998	St. Petersburg
Radio	$1,937	60	$116,220	11/11/1998	St. Petersburg
Radiological monitoring equip.	$10,175	1	$10,175	4/29/1998	St. Petersburg
Rap-Kit	$2,733	3	$8,199	4/29/1998	St. Petersburg
Repeater	$11,300	6	$67,800	11/11/1998	St. Petersburg
System, Uranium & Plutonium Inspector	$36,000	3	$108,000	6/20/1997	St. Petersburg
Transducer	$20,162	1	$20,162	8/3/1998	St. Petersburg
VCR	$3,275	6	$19,650	10/1/1997	St. Petersburg
Project: Security Enhancements for Railcars & Railcar Maintenance and Procurement – 2.2.3*			**$16,407,866**		
Kit, Railcar Conversion	$130,000	1	$130,000	10/27/1993	Tver
Kit, Railcar Conversion	$390,000	1	$390,000	10/27/1993	Tver
Kit, Railcar Conversion	$626,735	1	$626,735	3/8/1994	Tver
Kit, Railcar Conversion	$130,000	1	$130,000	3/24/1994	Tver
Kit, Railcar Conversion	$558,735	1	$558,735	3/28/1994	Tver
Kit, Railcar Conversion	$694,586	1	$694,586	5/25/1994	Tver
Kit, Railcar Conversion	$558,735	1	$558,735	5/28/1994	Tver
Kit, Railcar Conversion	$1,660,874	1	$1,660,874	5/28/1994	Tver
Kit, Railcar Conversion	$1,102,139	1	$1,102,139	6/10/1994	Tver
Kit, Railcar Conversion	$830,437	1	$830,437	6/26/1994	Tver
Kit, Railcar Conversion	$558,735	1	$558,735	7/20/1994	Tver
Kit, Railcar Conversion	$694,586	1	$694,586	7/20/1994	Tver
Kit, Railcar Conversion	$694,586	1	$694,586	8/8/1994	Tver
Kit, Railcar Conversion	$578,735	1	$578,735	8/29/1994	Tver
Kit, Railcar Conversion	$578,735	1	$578,735	9/1/1994	Tver
Kit, Railcar Conversion	$578,735	1	$578,735	9/5/1994	Tver
Kit, Railcar Conversion	$578,735	1	$578,735	10/7/1994	Tver
Kit, Railcar Conversion	$563,735	2	$1,127,470	11/5/1994	Tver
Kit, Railcar Conversion	$670,482	1	$670,482	11/14/1994	Tver
Kit, Railcar Conversion	$1,161,931	1	$1,161,931	11/14/1994	Tver
Kit, Railcar Conversion	$1,161,931	1	$1,161,931	11/14/1994	Tver
Kit, Railcar Conversion	$670,482	2	$1,340,964	11/14/1994	Tver

Item Name	Unit Price	Quantity	Total Value	Arrival Date	Location
Project: Transportation Safety Enhancements – 2.2.4			**$5,091,641**		
Flaw-mike systems	$156,123	1	$156,123	9/30/2002	St. Petersburg
Vehicle, Emergency Response	$178,052	5	$890,260	6/05/2002	Rybinsk
Vehicle, Emergency Response	$178,052	5	$890,260	7/12/2002	Rybinsk
Vehicle, Emergency Response	$14,800	6	$88,800	8/02/2002	Rybinsk
Vehicle, Emergency Response	$178,052	6	$1,068,312	9/11/2002	Rybinsk
Vehicle, Emergency Response	$203,018	1	$203,018	9/13/2002	Rybinsk
Vehicle, Emergency Response	$178,052	9	$1,602,468	9/13/2002	Rybinsk
Video Endoscope Equipment	$14,800	1	$14,800	5/17/2002	St. Petersburg
Video Endoscope Equipment	$103,600	1	$103,600	6/21/2002	St. Petersburg
Video Endoscope Equipment	$14,800	5	$74,000	7/12/2002	St. Petersburg
Project: Fissile Material Storage Facility Design			**$464,634**		
Computer	$5,400	1	$5,400	4/15/1997	Sarov
Computer	$5,400	1	$5,400	4/28/1997	St. Petersburg
Computer	$3,456	3	$10,368	6/26/1997	Sarov
Gamma-Neutron Passport Sys	$56,847	1	$56,847	12/12/1997	Sarov
Gas, Compressed	$22,530	1	$22,530	9/18/1996	Moscow
Monitor	$3,456	3	$10,368	6/26/1997	Sarov
Router, 3 COM Net Builder II	$5,950	1	$5,950	9/9/1999	Moscow LSB
Testing and Verification Equipment	$330,829	1	$330,829	9/18/1996	Moscow
Testing and Verification Equipment	$16,942	1	$16,942	8/28/1997	Sarov
Project: Fissile Material Storage Facility - 2.3			**$8,938,758**		
Asphalt, Layer	$163,367	1	$163,367	12/1/1995	Mayak
Bulldozer	$486,252	2	$972,504	5/31/1995	Mayak
Container Protective	$113,212	1	$113,212	5/20/1999	Mayak
Container Protective	$221,041	1	$221,041	5/20/1999	Mayak
Crane	$108,333	2	$216,666	8/10/1995	Chelyabinsk
Crane	$108,333	4	$433,332	8/10/1995	Mayak
Crane	$589,500	2	$1,179,000	8/10/1995	Mayak
Door, Hinged Protective	$129,229	2	$258,458	12/31/1997	Mayak
Door, Hinged Protective	$236,044	2	$472,088	12/31/1997	Mayak
Door, Hinged Protective	$167,500	4	$670,000	3/4/1998	Mayak
Door, Hinged Protective	$167,500	2	$335,000	4/10/1998	Mayak
Door, Hinged Protective	$167,500	2	$335,000	6/13/1998	Mayak
Door, Hinged Protective	$167,500	1	$167,500	7/29/1998	Mayak
Door, Rails	$250,000	1	$250,000	1/28/1998	Mayak
Excavator	$324,903	1	$324,903	5/31/1995	Mayak
Excavator	$373,571	2	$747,142	5/31/1995	Mayak
Pump, Concrete	$360,000	2	$720,000	12/1/1995	Mayak
Radiation & Survey Monitor Equip	$40,000	1	$40,000	5/31/1995	Mayak
Truck, Concrete Mixer	$129,210	3	$387,630	12/1/1995	Chelyabinsk
Truck, Concrete Mixer	$129,210	5	$646,050	12/1/1995	Mayak
Welder, Electric Arc	$57,173	2	$114,346	8/10/1995	Chelyabinsk
Welder, Electric Arc	$57,173	3	$171,519	8/10/1995	Mayak
Project: Fissile Material Containers – Mayak - 2.4			**$38,664,354**		
Containers, Fissile Material	$1,570	10	$15,700	3/1/1993	Mytischi
Containers, Fissile Material	$1,570	16	$25,120	11/8/1994	Mytischi
Containers, Fissile Material	$1,700	948	$1,611,600	3/17/1996	Mayak
Containers, Fissile Material	$1,700	840	$1,428,000	4/10/1996	Mayak
Containers, Fissile Material	$1,700	840	$1,428,000	5/5/1996	Mayak
Containers, Fissile Material	$1,700	840	$1,428,000	5/28/1996	Mayak
Containers, Fissile Material	$1,550	12	$18,600	6/26/1996	Mayak
Containers, Fissile Material	$1,450	1,188	$1,722,600	6/26/1996	Mayak
Containers, Fissile Material	$1,450	1,320	$1,914,000	7/30/1996	Mayak
Containers, Fissile Material	$1,450	960	$1,392,000	8/28/1996	Mayak
Containers, Fissile Material	$1,450	1,200	$1,740,000	9/30/1996	Mayak
Containers, Fissile Material	$1,450	1,080	$1,566,000	10/26/1996	Mayak
Containers, Fissile Material	$1,450	840	$1,218,000	11/29/1996	Mayak
Containers, Fissile Material	$1,382	1680	$2,321,760	1/24/1997	Mayak
Containers, Fissile Material	$1,382	840	$1,160,880	2/27/1997	Mayak
Containers, Fissile Material	$1,382	840	$1,160,880	4/10/1997	Mayak
Containers, Fissile Material	$1,382	840	$1,160,880	4/22/1997	Mayak
Containers, Fissile Material	$1,382	840	$1,160,880	6/10/1997	Mayak
Containers, Fissile Material	$1,382	840	$1,160,880	7/7/1997	Mayak
Containers, Fissile Material	$1,382	840	$1,160,880	7/30/1997	Mayak
Containers, Fissile Material	$1,382	840	$1,160,880	10/2/1997	Mayak

Item Name	Unit Price	Quantity	Total Value	Arrival Date	Location
Containers, Fissile Material	$1,382	1,200	$1,658,400	11/2/1997	Mayak
Containers, Fissile Material	$1,382	1,800	$2,487,600	11/29/1997	Mayak
Containers, Fissile Material	$1,382	960	$1,326,720	1/6/1998	Mayak
Containers, Fissile Material	$1,382	840	$1,160,880	1/28/1998	Mayak
Containers, Fissile Material	$1,466	960	$1,407,360	3/5/1998	Mayak
Containers, Fissile Material	$1,736	120	$208,320	5/3/1998	Mayak
Containers, Fissile Material	$1,466	581	$851,746	5/3/1998	Mayak
Containers, Fissile Material	$1,466	720	$1,055,520	6/13/1998	Mayak
Containers, Fissile Material	$1,736	87	$151,032	7/3/1998	Mayak
Containers, Fissile Material	$1,466	600	$879,600	7/3/1998	Mayak
Containers, Fissile Material	$1,466	840	$1,231,440	7/29/1998	Mayak
Special Containers, Fissile Material	$145,098	2	$290,196	5/3/1998	Mayak
Project: Chemical Weapons Site Security - 2.6			No GFE equipment with a total value ≥ $5,000 has been provided under this project.		
Project: Biological Weapons Security Enhancements - 2.7			No GFE equipment with a total value ≥ $5,000 has been provided under this project.		
Project: Emergency Response – Russia - 2.9.1			**$6,457,289**		
Accelerator, Linear	$1,150,000	1	$1,150,000	4/10/1995	Sarov
Accelerator, Linear (Head Unit)	$250,000	1	$250,000	10/2/1995	Sarov
Accelerator, Linear (Parts)	$13,251	1	$13,251	8/30/1997	Sarov
Barrier	$69	100	$6,864	3/29/1993	Snezhinsk
Computer	$1,966	8	$15,728	4/10/1995	Mytischi
Computer	$1,993	8	$15,944	4/10/1995	Mytischi
Conditioner, Power	$402	16	$6,432	4/10/1995	Mytischi
Copier	$12,998	6	$77,988	4/10/1995	Mytischi
Cutter, Liquid Abrasive	$700,000	1	$700,000	4/10/1995	Snezhinsk
Cutter, Liquid Abrasive	$700,000	1	$700,000	12/15/1995	Sarov
Fax Machine	$2,609	6	$15,654	4/10/1995	Mytischi
Kit, Polyurethane Foam	$38	200	$7,500	3/29/1993	Snezhinsk
Network Computer System	$455,403	1	$455,403	1/25/1994	Sarov, Snezhinsk, Mytischi
Office LAN Computer System	$368,973	1	$368,973	3/28/1997	Sarov, Snezhinsk, Mytischi
Player, Video	$2,035	6	$12,210	4/10/1995	Mytischi
Portable Integrated Video System	$218,900	1	$218,900	12/3/1993	Sarov
Portable Integrated Video System	$218,900	1	$218,900	12/3/1993	Snezhinsk
Portable Integrated Video System	$218,900	2	$437,800	12/3/1993	Mytischi
Printer	$1,867	8	$14,936	4/10/1995	Mytischi
Software, MS Office	$511	16	$8,176	4/10/1995	Mytischi
Software, Windows Write	$549	16	$8,784	4/10/1995	Mytischi
System, Fiberscope	$22,100	1	$22,100	9/28/1993	Sarov
System, Fiberscope	$22,100	1	$22,100	9/28/1993	Snezhinsk
System, Fiberscope	$22,100	2	$44,200	9/28/1993	Mytischi
Tool, Emergency Access	$43,900	10	$439,000	9/19/1993	Svredlovsk
Vehicle, Packaging	$67,950	1	$67,950	9/28/1993	Mytischi
Vehicle, Packaging	$67,950	1	$67,950	11/30/1993	Svredlovsk
Vehicle, Packaging	$67,950	1	$67,950	12/3/1993	Sarov
Video, Camcorder	$637	8	$5,096	4/10/1995	Mytischi
Violinist III, Kits	$10,175	10	$101,750	4/28/1993	Sarov, Snezhinsk, Mytischi
Violinist III, Kits	$10,175	23	$234,025	6/15/1993	Sarov, Snezhinsk, Mytischi
Violinist III, Kits	$10,175	20	$203,500	7/6/1993	Sarov, Snezhinsk, Mytischi
Violinist III, Kits	$10,175	47	$478,225	9/28/1993	Sarov, Snezhinsk, Mytischi
Project: Elimination of Weapons Grade Plutonium Production - 2.10			No GFE equipment with a total value ≥ $5,000 has been provided under this project.		
Project: Personnel Reliability & Safety – 3.1*			**$4,993,762**		
Additional Polygraph Equipment	$13,070	10	$130,702	3/10/2000	Sergiev Posad
Breathalyzer, Alcohol	$11,782	1	$11,782	11/14/1997	Sergiev Posad
Breathalyzer, Alcohol	$6,820	20	$136,400	11/14/1997	Sergiev Posad
Breathalyzer, Alcohol	$136,535	1	$136,535	11/14/1997	Sergiev Posad
Breathalyzer, Alcohol	$4,407	40	$176,280	11/14/1997	Sergiev Posad
Computer	$2,700	5	$13,500	7/16/1996	St. Petersburg
Computer	$1,152	6	$6,912	6/20/1997	St. Petersburg
Confirmation Lab	$227,196	1	$227,196	11/29/1999	Sergiev Posad
Dosimeters	$41,400	8	$331,200	12/3/1998	Sergiev Posad
Dosimeters	$41,400	8	$331,200	3/29/1999	St. Petersburg
Dosimeters	$41,400	27	$1,117,800	5/6/1999	Sergiev Posad
Dosimeters	$686,971	2	$1,373,942	7/3/2002	Sergiev Posad
Equipment, Support	$14,421	8	$115,371	12/3/1998	Sergiev Posad
Equipment, Support	$14,421	8	$115,371	3/29/1999	St. Petersburg
Equipment, Support	$14,421	27	$389,378	5/6/1999	Sergiev Posad

Item Name	Unit Price	Quantity	Total Value	Arrival Date	Location
Lab Standards	$23,477	1	$23,477	5/17/2000	Sergiev Posad
Laboratory Standards	$8,992	1	$8,992	12/2/1999	Sergiev Posad
Miscellaneous Equipment	$5,854	1	$5,854	11/29/1999	Sergiev Posad
Polygraph, Computerized	$10,704	5	$53,520	11/14/1997	St. Petersburg
Radioactive Sources	$101,574	1	$101,574	6/4/2002	Sergiev Posad
Receiving/Accessioning Room	$63,923	1	$63,923	11/29/1999	Sergiev Posad
Screening Lab	$122,854	1	$122,854	11/29/1999	Sergiev Posad
Project: Collaborative Biological Research - 3.2			No GFE equipment with a total value ≥ $5,000 has been provided under this project.		
Project: Defense Conversion – Russia - 4.4.1			**$134,797**		
Component Placer	$14,000	1	$14,000	6/16/1999	Moscow
Component Placer	$16,650	1	$16,650	6/16/1999	Moscow
Computer	$2,828	5	$14,140	6/16/1999	Moscow
Reflow Oven	$32,900	1	$32,900	6/16/1999	Moscow
Stereo Microscope Set	$3,500	2	$7,000	6/16/1999	Moscow
Stereo Microscope Set	$3,500	2	$7,000	12/29/1999	Moscow
System, Hearing Aid Test	$10,635	1	$10,635	6/16/1999	Moscow
System, Hearing Aid Test	$12,151	1	$12,151	6/16/1999	Moscow
System, Hearing Aid Test	$10,160	2	$20,321	6/16/1999	Moscow
Project: Civilian Research and Development Fund - 4.7			No GFE equipment with a total value ≥ $5,000 has been provided under this project.		
Project: Defense Enterprise Fund - 4.8.1			No GFE equipment with a total value ≥ $5,000 has been provided under this project.		
Project: Armored Blankets *			**$3,188,434**		
Armored Blanket (Army Stock)	$406	750	$304,500	6/23/1992	Russia
Armored Blanket (Army Stock)	$406	750	$304,500	7/14/1992	Russia
Armored Blanket	$997	684	$681,736	4/27/1993	Russia
Armored Blanket	$997	649	$646,852	5/14/1993	Russia
Armored Blanket	$997	684	$681,736	5/28/1993	Russia
Armored Blanket	$997	571	$569,110	6/11/1993	Russia
Russia Total			**$275,008,613**		
Country - Ukraine					
Project: SS-19 Liquid Propellant Disposition			**$2,748,721**		
Crane	$391,735	3	$1,175,205	8/18/1995	Lubashevka
Container, Intermodal	$54,068	8	$432,544	5/4/1995	Pervomaysk
Fuel Storage Tanks	$12,875	60	$772,500	12/15/1994	Shevchenkovo
Tractor	$74,418	4	$297,672	8/18/1995	Lubashevka
Trailer	$17,700	4	$70,800	9/12/1995	Lubashevka
Project: SS-19 Neutralization and Dismantlement Facility – 1.4.1			**$10,423,734**		
Analyzer, Gas	$2,691	5	$13,455	5/30/1996	Dnepropetrovsk
Analyzer, Gas	$5,770	5	$28,850	5/30/1996	Dnepropetrovsk
Computer	$10,148	8	$81,184	11/4/1994	Kiev
Computer	$28,626	5	$143,130	3/31/1995	Kiev
Computer Equipment	$3,163	2	$6,326	5/30/1996	Dnepropetrovsk
Computer Equipment – Hand carry	$8,282	1	$8,282	4/5/1999	Dnepropetrovsk
Container, Intermodal	$54,068	6	$324,408	5/4/1995	Dnepropetrovsk
Copier	$3,852	2	$7,704	5/31/1996	Uman
Crane	$76,910	1	$76,910	9/28/1995	Dnepropetrovsk
Crane	$295,000	1	$295,000	9/28/1995	Dnepropetrovsk
Crane	$350,509	1	$350,509	4/22/1996	Dnepropetrovsk
Cutter, Plasma	$15,200	1	$15,200	5/30/1996	Dnepropetrovsk
Fax Machine	$2,493	6	$14,958	8/17/1994	Kiev
Fire truck	$198,362	2	$396,724	8/14/1996	Dnepropetrovsk
Incinerator, Single Trailer	$929,000	2	$1,858,000	7/29/1995	Pervomaysk
Incinerator, Single Trailer	$929,000	1	$929,000	7/31/1995	Dnepropetrovsk
Incinerator, Single Trailer	$1,034,000	1	$1,034,000	8/11/1995	Dnepropetrovsk
Mobile Incinerators	$929,000	2	$1,858,000	8/3/1995	Khemilnitsky
Oxygen-Nitrogen Prod. System	$615,095	2	$1,230,190	5/13/1996	Pervomaysk
Oxygen-Nitrogen Prod. System	$615,095	2	$1,230,190	5/14/1996	Mikhailyenki
Oxygen-Nitrogen Prod. System	$73,560	2	$147,120	5/13/1996	Pervomaysk
Oxygen-Nitrogen Prod. System	$73,560	2	$147,120	5/14/1996	Mikhailyenki
Power Unit	$3,134	2	$6,268	5/30/1996	Dnepropetrovsk
Radio	$1,881	5	$9,405	5/30/1996	Dnepropetrovsk
Tool Carrier, Integrated	$145,690	1	$145,690	3/22/1995	Dnepropetrovsk
Tractor	$39,226	1	$39,226	3/30/1995	Dnepropetrovsk
Trailer	$15,917	1	$15,917	3/30/1995	Dnepropetrovsk
Ventilation Equipment	$2,742	4	$10,968	5/30/1996	Dnepropetrovsk
Project: SS-24 Silo Elimination - 1.4.2			**$1,395,106**		

Item Name	Unit Price	Quantity	Total Value	Arrival Date	Location
Crane	$368,837	1	$368,837	3/28/1994	Pervomaysk
Crane	$368,837	2	$737,675	5/18/1994	Pervomaysk
HMMWV's	$38,900	6	$233,400	3/21/1994	Pervomaysk
Suburbans	$27,597	2	$55,194	11/3/2000	Uman
Project: SS-24 Missile Disassembly, Storage and Elimination - 1.4.3			**$2,637,458**		
Dump truck	$63,178	1	$63,178	3/30/1995	Pavlograd
Crane	$1,112,580	2	$2,225,160	1/27/1996	Pavlograd
Crane	$174,560	2	$349,120	3/20/1995	Pavlograd
Project: SS-24 Propellant Disposition Facility - 1.4.4			**$255,688**		
Prime Mover	$65,028	1	$65,028	8/5/2002	Pavlograd
Trailers (36L)	$52,305	1	$52,305	8/6/1995	Pavlograd
Grader	$138,355	1	$138,355	3/20/1995	Pavlograd
Project: Bomber & ALCM Elimination – 1.4.5			**$941,848**		
Baler	$497,941	1	$497,941	10/16/1998	Mikhailyenki
Cable Chopper	$346,444	1	$346,444	7/14/1997	Mikhailyenki
Cable Stripper	$31,340	1	$31,340	10/28/1998	Mikhailyenki
Shears, Alligator	$38,493	1	$38,493	10/28/1998	Mikhailyenki
Suspended Electromagnets	$27,630	1	$27,630	10/28/1998	Mikhailyenki
Project: Non-Deployed ICBM Elimination Equipment– 1.4.6			**$1,518,275**		
Air Compressor	$4,809	10	$48,092	4/1/1999	Mikhailyenki
Copier	$11,319	1	$11,319	4/26/1999	Mikhailyenki
Cutter, Plasma	$63,909	2	$127,818	7/26/1999	Mikhailyenki
Cutter, Plasma	$99,942	2	$163,851	10/18/1999	Mikhailyenki
Fire truck	$285,593	1	$285,593	1/25/2000	Mikhailyenki
Hood	$1,707	50	$85,368	7/26/1999	Mikhailyenki
Jack, Hydraulic	$1,703	4	$6,813	4/1/1999	Mikhailyenki
Saw, Cutoff	$2,102	10	$21,019	7/26/1999	Mikhailyenki
Shear, Hydraulic	$22,841	1	$22,841	4/1/1999	Mikhailyenki
Sling, Nylon	$120	50	$6,006	7/26/1999	Mikhailyenki
Sling, Nylon	$120	50	$6,006	10/18/1999	Mikhailyenki
Tool Carrier, Integrated	$190,860	2	$381,720	9/8/1999	Mikhailyenki
Tool Set	$1,666	20	$33,318	4/1/1999	Mikhailyenki
Torch, Cutting	$1,869	5	$9,345	7/26/1999	Mikhailyenki
Torch, Cutting	$1,869	5	$9,345	10/18/1999	Mikhailyenki
Tractor, Ford	$109,040	2	$218,080	8/13/1999	Mikhailyenki
Trailer, 26 L	$40,871	2	$81,742	5/24/1999	Mikhailyenki
Project: Emergency Response Support Equipment – 1.4.7			**$9,438,236**		
Air Compressor	$36,452	1	$36,452	8/22/1995	Khmelnitskiy
Air Compressor	$36,452	1	$36,452	8/22/1995	Pervomaysk
Ambulance	$265,360	2	$530,720	7/14/1997	Uman
Breathing Apparatus & Cylinder	$2,121	50	$106,050	8/22/1995	Khmelnitskiy
Breathing Apparatus & Cylinder	$2,121	50	$106,050	8/22/1995	Pervomaysk
Crane	$1,112,580	2	$2,225,160	5/2/1995	Khmelnitskiy
Crane	$1,739,000	1	$1,739,000	1/26/1996	Khmelnitskiy
Crane	$1,739,000	1	$1,739,000	1/30/1996	Pervomaysk
Cutter	$283,368	2	$566,736	9/5/1995	Pervomaysk
Cutter	$283,368	2	$566,736	9/7/1995	Khmelnitskiy
Equipment, Computer	$4,834	2	$9,668	10/3/1994	Kiev
Equipment, Fire Fighting	$185,000	2	$370,000	5/23/1996	Uman
Fire truck	$191,512	1	$191,512	8/22/1995	Khmelnitskiy
Fire truck	$191,512	1	$191,512	8/22/1995	Pervomaysk
Helicopter-Mounted	$162,500	2	$325,000	5/23/1996	Uman
Jack, Set, Pillow	$5,774	1	$5,774	11/5/1994	Khmelnitskiy
Jack, Set, Pillow	$5,774	1	$5,774	11/5/1994	Pervomaysk
Radio	$1,795	10	$17,950	3/22/1994	Kiev
Short Range Radios	$2,171	90	$195,429	9/12/1995	Uman
Sling, Lifting	$9,348	4	$37,390	9/11/1996	Khmelnitskiy
Sling, Lifting	$9,348	4	$37,391	9/9/1996	Khmelnitskiy
Toxic Gas Analyzers N204	$2,306	10	$23,064	11/30/1995	Uman
Toxic Gas Analyzers UMDH	$5,500	10	$55,000	11/30/1995	Uman
Truck	$80,104	2	$160,208	9/5/1995	Pervomaysk
Truck	$80,104	2	$160,208	9/7/1995	Khmelnitskiy
Project: SS-19 Silo Elimination – 1.4.8			**$26,777,409**		
Air Compressor	$32,631	3	$97,893	12/3/1996	Pervomaysk
Appliances, Kitchen	$6,229	2	$12,458	8/2/1995	Pervomaysk

Item Name	Unit Price	Quantity	Total Value	Arrival Date	Location
Bulldozer	$399,696	3	$1,199,088	3/20/1995	Pervomaysk
Bulldozer	$208,480	6	$1,250,880	3/20/1995	Pervomaysk
Bulldozer	$92,085	3	$276,255	3/30/1995	Pervomaysk
Carrier, Personnel	$83,461	22	$1,836,142	6/12/1996	Pervomaysk
Cart, Hot Gas Purge	$18,646	2	$37,292	7/26/1996	Pervomaysk
Cleaner, Steam	$24,911	2	$49,822	4/5/1996	Pervomaysk
Computer	$24,783	1	$24,783	10/31/1997	Kiev
Copier	$20,415	1	$20,415	4/21/1998	Kiev
Crane	$174,560	7	$1,221,920	3/20/1995	Pervomaysk
Crane	$215,000	12	$2,580,000	10/18/1995	Pervomaysk
Crane	$871,213	2	$1,742,426	10/20/1995	Pervomaysk
Crane	$871,213	2	$1,742,426	10/23/1995	Pervomaysk
Crane	$143,020	8	$1,144,160	9/1/1996	Pervomaysk
Cutter, Plasma	$15,200	2	$30,400	9/12/1995	Pervomaysk
Cutter, Plasma	$15,200	2	$30,400	9/12/1995	Pervomaysk
Dump truck	$63,178	35	$2,211,230	3/30/1995	Pervomaysk
Equipment, Communication	$29,012	1	$29,012	3/6/1997	Kiev
Equipment, Computer	$7,123	1	$7,123	8/28/1995	Pervomaysk
Equipment, Computer	$14,141	1	$14,141	8/28/1995	Pervomaysk
Equipment, Computer	$7,123	1	$7,123	10/30/1995	Pervomaysk
Equipment, Replacement	$28,626	2	$57,252	9/11/1995	Kiev
Excavator	$212,140	3	$636,420	8/5/1995	Pervomaysk
Excavator	$337,795	3	$1,013,385	8/5/1995	Pervomaysk
Excavator	$189,144	6	$1,134,864	8/5/1995	Pervomaysk
Fire truck	$198,362	2	$396,724	8/16/1996	Pervomaysk
Forklift	$55,773	10	$557,730	9/21/1995	Pervomaysk
Grader	$138,355	2	$276,710	3/20/1995	Pervomaysk
Grader	$321,923	6	$1,931,538	3/20/1995	Pervomaysk
Jack, Hydraulic	$1,156	12	$13,872	10/30/1995	Pervomaysk
Lab, Mobile	$617,460	1	$617,460	4/22/1996	Pervomaysk
Network, Communication	$195,429	1	$195,429	9/12/1995	Pervomaysk
Saw, Cutoff	$484	12	$5,808	10/30/1995	Pervomaysk
Server, Color Xerox	$22,365	1	$22,365	4/21/1998	Kiev
Shelter, Housing	$58,378	13	$758,914	7/21/1995	Pervomaysk
Shelter, Housing	$58,378	12	$700,536	8/2/1995	Pervomaysk
Shelter, Mess Facility	$39,310	3	$117,930	7/21/1995	Pervomaysk
Shelter, Mess Facility	$39,310	2	$78,620	8/2/1995	Pervomaysk
Sling, Lifting	$9,348	4	$37,392	9/11/1996	Pervomaysk
Tool Carrier	$200,278	6	$1,201,668	9/22/1997	Pervomaysk
Tool, Emergency Access	$11,947	1	$11,947	8/6/1995	Pervomaysk
Tool, Emergency Access	$11,947	9	$107,523	9/12/1995	Pervomaysk
Torch, Cutting	$961	12	$11,532	3/1/1996	Pervomaysk
Tractor	$44,826	5	$224,130	8/18/1995	Pervomaysk
Tractors	$74,125	6	$444,748	8/6/1995	Pervomaysk
Trailers (20L)	$40,649	4	$162,598	8/6/1995	Pervomaysk
Trailers (36L)	$52,305	1	$52,305	8/6/1995	Pervomaysk
Van	$23,000	3	$69,000	2/1/1996	Pervomaysk
Washer - Dryer	$792	25	$19,800	7/19/1995	Pervomaysk
Winch	$14,900	8	$119,200	8/6/1995	Pervomaysk
Winch	$14,900	2	$29,800	9/12/1995	Pervomaysk
Winch	$18,700	10	$187,000	9/12/1995	Pervomaysk
Winch, Hand	$990	18	$17,820	10/30/1995	Pervomaysk
Project: Weapons of Mass Destruction Infrastructure Elimination - Ukraine - 1.5			No GFE equipment with a total value ≥ $5,000 has been provided under this program.		
Project: Government-to-Government Communications Link – Ukraine - 4.1			**$921,614**		
Equipment, Communications	$223,841	1	$223,841	5/22/1995	Kiev
Equipment, Communications	$692,773	1	$692,773	8/3/1998	Kiev
Transceiver	$5,000	1	$5,000	4/5/2000	Kiev
Project: Defense Conversion - Ukraine - 4.4.2			**$1,407,653**		
Assembly Set	$55,489	1	$55,489	12/14/2001	Kiev
Assembly Set	$50,000	3	$150,000	12/14/2001	Kiev
Die Casting Press Unit	$309,473	1	$309,473	12/14/2001	Kiev
Die Casting Press Unit	$170,000	3	$510,000	12/14/2001	Kiev
Guard	$15,000	1	$15,000	12/14/2001	Kiev
Locking System	$55,000	1	$55,000	12/14/2001	Kiev
Press Unit Control System	$60,000	1	$60,000	12/14/2001	Kiev
Press Unit Control System	$60,000	3	$180,000	12/14/2001	Kiev

Item Name	Unit Price	Quantity	Total Value	Arrival Date	Location
Spare Parts	$16,691	1	$16,691	12/14/2001	Kiev
Stand	$26,000	1	$26,000	12/14/2001	Kiev
Trim Press	$10,000	3	$30,000	12/14/2001	Kiev
Project: Export Control - Ukraine - 4.5.1			**$9,080,250**		
Computer	$3,928	5	$19,640	1/2/1995	Kiev
Computer Equipment	$161,457	1	$161,457	8/30/1999	Kiev
Computer Equipment	$161,457	1	$161,457	10/1/1999	Kiev
Copier	$3,255	2	$6,510	6/20/1995	Kiev
Customs Automation	$535,163	2	$1,070,326	2/17/1996	Kiev
Customs Automation	$1,085,920	2	$2,171,840	4/4/1996	Kiev
Detector	$12,755	25	$318,875	1/17/1997	Kiev
Detector	$13,533	25	$338,332	2/9/2000	Kiev
Elevator, Otis	$40,800	1	$40,800	10/20/1999	Kiev
Equipment, Computer	$1,081,373	1	$1,081,373	3/3/1998	Kiev
Equipment, Computer	$158,895	1	$158,895	3/26/1998	Kiev
Equipment, Computer	$59,620	1	$59,620	6/15/1998	Kiev
Equipment, Computer	$18,400	1	$18,400	7/16/1998	Kiev
Equipment, Computer	$32,701	1	$32,701	8/3/1999	Kiev
Equipment, Laboratory	$34,154	1	$34,154	10/12/1995	Kiev
Generator	$2,420	60	$145,200	1/30/1998	Kiev
LAN for Export Control ETC	$1,684,419	1	$1,684,419	4/8/1996	Kiev
LAN for Export Control ETC	$169,065	1	$169,065	2/28/1996	Kiev
Machine, X-Ray	$31,450	7	$220,150	1/17/1997	Kiev
Machine, X-Ray	$31,450	6	$188,700	1/27/1997	Kiev
Machine, X-Ray	$32,950	3	$98,850	2/18/1997	Kiev
System, Computer, Office LAN	$72,586	1	$72,586	5/29/1995	Kiev
X-Ray Vans	$98,450	2	$196,900	8/2/1996	Kiev
X-Ray Vans	$105,000	6	$630,000	8/5/1998	Kiev
Project: Emergency Response - Ukraine			**$1,651,583**		
Air Sampler	$690	10	$6,900	4/10/1995	Kiev
Air Sampler	$3,498	10	$34,980	4/10/1995	Kiev
Detector, Neutron	$1,000	16	$16,000	7/5/1995	Kiev
Detector, Radiation	$7,000	20	$140,000	7/5/1995	Kiev
Equipment, Computer	$62,333	3	$186,999	4/10/1995	Kiev
Equipment, Computer	$44,189	1	$44,189	9/13/1996	Kiev
Network, Radio	$567,204	1	$567,204	9/18/1996	Kiev
Spectrometer, Alpha	$25,289	1	$25,289	7/5/1995	Kiev
System, Computer, Office LAN	$351,762	1	$351,762	9/13/1996	Kiev
Violinist III, w/Laptop Drivers	$13,913	20	$278,260	7/5/1995	Kiev
Ukraine Total			**$69,197,575**		
Country - Kazakhstan					
Project: Strategic Offensive Arms Elimination – Kazakhstan - 1.6			**$2,276,465**		
Ambulance	$52,415	1	$52,415	11/1/1998	Almaty
Baler	$134,939	1	$134,939	11/1/1998	Almaty
Baler	$404,817	1	$404,817	11/1/1998	Almaty
Crane	$230,369	1	$230,369	11/1/1998	Almaty
Excavator	$145,879	1	$145,879	11/1/1998	Almaty
Incinerator, Mobil	$825,500	1	$825,500	10/21/2001	Almaty
Platform, Ladder	$1,596	4	$6,384	11/1/1998	Almaty
Radio	$12,909	1	$12,909	11/1/1998	Almaty
Saw, Cutoff	$673	10	$6,735	11/1/1998	Almaty
Scale, Truck	$1,275	4	$5,100	11/1/1998	Almaty
Shears/Inst	$86,950	1	$86,950	11/1/1998	Almaty
Tool Carrier, Integrated	$93,363	1	$93,363	11/1/1998	Almaty
Tool, Hydraulic	$66,309	1	$66,309	11/1/1998	Almaty
Torch, Cutting	$845	10	$8,450	11/1/1998	Almaty
Tractor	$76,302	1	$76,302	11/1/1998	Almaty
Tractor	$103,500	1	$103,500	10/21/2001	Almaty
Trailer	$16,544	1	$16,544	11/1/1998	Almaty
Project: Nuclear Testing Infrastructure Elimination			**$536,592**		
Air Compressor	$64,450	1	$64,450	6/19/1997	Semipalatinsk
Computer	$6,290	1	$6,290	1/23/1998	Semipalatinsk
Computer	$1,825	10	$18,250	6/2/1998	Semipalatinsk
Drill, Rock	$180,000	1	$180,000	5/29/1998	Semipalatinsk
Equipment, Safety and Computer	$70,453	1	$70,453	4/19/1996	Semipalatinsk
Equipment, Safety and Computer	$12,323	1	$12,323	5/13/1996	Semipalatinsk
Instrument	$20,000	1	$20,000	5/29/1998	Semipalatinsk

Item Name	Unit Price	Quantity	Total Value	Arrival Date	Location
Plotter, HP Design Jet	$7,611	1	$7,611	1/23/1998	Semipalatinsk
Rod, Drill	$300	20	$6,000	6/19/1997	Semipalatinsk
Scanner	$12,282	1	$12,282	1/23/1998	Semipalatinsk
Software, MS Office 97	$908	12	$10,896	6/2/1998	Semipalatinsk
Track, Drill	$116,037	1	$116,037	6/19/1997	Semipalatinsk
Vehicle	$12,000	1	$12,000	1/16/1998	Semipalatinsk
Project: BW Infrastructure Elimination - Kazakhstan – 1.7.1			**$1,123,823**		
PCR System and accessories	$13,130	1	$13,130	10/30/2000	Stepnogorsk
PCR System and accessories	$13,139	1	$13,139	11/10/2000	Stepnogorsk
Liquid Chromatograph	$90,500	1	$90,500	10/30/2000	Stepnogorsk
Accessory	$25,873	1	$25,873	6/5/1998	Stepnogorsk
Ball Mill	$5,005	1	$5,005	6/5/1998	Stepnogorsk
Equipment, Laboratory	$919,490	1	$919,490	11/27/1997	Stepnogorsk
Freezer	$14,700	1	$14,700	6/5/1998	Stepnogorsk
Gas, Chromatograph	$35,750	1	$35,750	6/5/1998	Stepnogorsk
Laboratory Safety Supplies	$6,237	1	$6,237	11/7/1999	Stepnogorsk
Project: Fissile and Radioactive Materials Proliferation Prevention - 2.5.1			No GFE equipment with a total value ≥ $5,000 has been provided under this project.		
Project: BW Security and Transparency - 2.8			No GFE equipment with a total value ≥ $5,000 has been provided under this project.		
Project: Emergency Response – Kazakhstan - 2.9.2			**$763,284**		
Air Sampler	$2,395	12	$28,740	2/25/1996	Semipalatinsk
Analyzer, Gas	$38,303	1	$38,303	2/25/1996	Semipalatinsk
Detector, Material	$12,187	8	$97,496	2/25/1996	Semipalatinsk
Detector, Radiation	$6,845	6	$41,070	2/25/1996	Semipalatinsk
Dosimeter	$100	330	$33,000	2/25/1996	Semipalatinsk
Equipment, Computer	$16,081	1	$16,081	6/21/1996	Semipalatinsk
Network, Radio	$257,853	1	$257,853	6/20/1997	Semipalatinsk
System, Computer, Office LAN	$250,741	1	$250,741	6/20/1997	Semipalatinsk
Project: Government-to-Government Communications Link – Kazakhstan - 4.2			**$939,706**		
Circuitry, Communications	$25,000	1	$25,000	5/2/1995	Almaty
Components, Earth Station	$51,656	1	$51,656	7/11/1998	Almaty
Equipment, Antenna	$158,279	1	$158,279	7/3/1998	Almaty
Equipment, Communications	$222,153	1	$222,153	5/2/1995	Almaty
Equipment, STS	$482,618	1	$482,618	7/3/1998	Almaty
Project: Defense Conversion - Kazakhstan - 4.4.3			No GFE equipment with a total value ≥ $5,000 has been provided under this project.		
Project: Export Control - Kazakhstan - 4.5.2			**$3,974,301**		
Accessory	$379	50	$18,950	6/29/1997	Almaty
Adapter, Vehicle	$584	50	$29,200	6/29/1997	Almaty
Advance Payment	$121,121	1	$121,121	3/29/1997	Almaty
Boat	$144,368	2	$288,736	1/2/1996	Aqtau
Boat	$118,264	1	$118,264	4/12/1996	Aqtau
Boat	$140,763	1	$140,763	4/27/1996	Aqtau
Boat	$140,763	1	$140,763	4/27/1996	Aqtau
Boat	$144,368	1	$144,368	4/27/1996	Aqtau
Boat	$613,537	1	$613,537	8/1/1996	Aqtau
Bus	$60,000	4	$240,000	7/2/1997	Almaty
Camera	$388	20	$7,759	9/19/1996	Almaty
Notebook Computer	$70,806	1	$70,806	3/29/1997	Almaty
Computer Systems	$262,088	1	$262,088	3/29/1997	Almaty
Computer, Workstation	$86,648	1	$86,648	11/28/1996	Almaty
Copier	$3,255	2	$6,510	7/28/1995	Almaty
Copier	$10,016	2	$20,032	11/21/1995	Almaty
Copier	$182,648	1	$182,648	2/20/1997	Almaty
Documentation	$80,747	1	$80,747	3/29/1997	Almaty
Equipment, Boat Training	$5,746	1	$5,746	4/12/1996	Aqtau
Equipment, Computer	$51,719	1	$51,719	12/10/1995	Almaty
Equipment, Computer	$258,198	1	$258,198	2/7/1997	Almaty
Equipment, Computer	$71,306	1	$71,306	3/29/1997	Almaty
Equipment, Laboratory	$54,109	1	$54,109	7/30/1995	Almaty
Equipment, Office	$34,686	1	$34,686	11/21/1995	Almaty
Equipment, Patrol	$11,143	1	$11,143	7/7/1997	Aqtau
Equipment, Radio	$203,798	1	$203,798	7/7/1997	Aqtau
Fax Machine	$2,600	2	$5,200	12/12/1995	Almaty
Gamma Rad.	$1,297	100	$129,700	9/18/1996	Almaty

Item Name	Unit Price	Quantity	Total Value	Arrival Date	Location
Gun Mount	$10,778	1	$10,778	8/1/1996	Aqtau
Lens	$344	20	$6,876	9/19/1996	Almaty
Lens	$467	20	$9,334	9/19/1996	Almaty
Lens, Zoom	$450	20	$8,995	9/19/1996	Almaty
Radio	$1,648	50	$82,400	6/29/1997	Almaty
Repeater II	$14,106	2	$28,212	6/29/1997	Almaty
Speed, Light	$375	20	$7,499	9/19/1996	Almaty
Trailer	$7,453	3	$22,359	4/27/1996	Aqtau
Truck, Pickup	$16,985	8	$135,880	6/29/1997	Almaty
Van, Mini	$18,482	5	$92,410	6/29/1997	Almaty
Vehicle	$21,377	8	$171,013	6/29/1997	Almaty
Project: Defense Enterprise Fund - Kazakhstan - 4.8.2			No GFE equipment with a total value ≥ $5,000 has been provided under this project.		
Kazakhstan Total			**$9,614,171**		
Country - Georgia					
Project: Export Control - 4.5.3			**$679,550**		
Boat	$329,550	1	$329,550	2/8/1999	Poti
Boat	$350,000	1	$350,000	4/15/1998	Poti
Georgia Total			**$679,550**		
Country – Uzbekistan					
Project: Nukus Chemical Research Institute Demilitarization - 1.8			No GFE equipment with a total value ≥ $5,000 has been provided under these projects.		
Country – Multiple					
Project: BW Infrastructure Elimination - 1.3			No GFE equipment with a total value ≥ $5,000 has been provided under this project.		
Projects: Defense and Military Contacts - 4.3			No GFE equipment with a total value ≥ $5,000 has been provided under these projects.		
Projects: Science and Technology Centers (ISTC) - 4.6			No GFE equipment with a total value ≥ $5,000 has been provided under these projects.		
Projects: Defense Enterprise Fund 4.8			No GFE equipment with a total value ≥ $5,000 has been provided under these projects.		
Projects: Initiatives for Proliferation Prevention (IPP) - 4.9			No GFE equipment with a total value ≥ $5,000 has been provided under these projects.		
Total Equipment			**$354,499,910**		

* Equipment was shipped to initial delivery locations in Russia for onward delivery to classified locations such as nuclear weapons storage sites. Listed locations represent initial shipping destination, not classified site.

** Equipment is located at 12th GUMO classified locations.

*** Equipment purchased under this project has been transferred for use under the Heavy Bomber Elimination and SS-24 Silo Elimination projects.

Appendix E: Financial Commitment for FY 2003 from the International Community and Russia for the Chemical Weapons Destruction Facility at Shchuch'ye, Russia.

Section 1309 of the National Defense Authorization Act (NDAA) for FY 2002 (Public Law 107-107) is entitled, "Additional Matter in Annual Report on Activities and Assistance under Cooperative Threat Reduction Programs" and requires:

> *"A description of the amount of the financial commitment from the international community, and from Russia, for the chemical weapons destruction facility located at Shchuch'ye, Russia, for the fiscal year beginning in the year in which the report is submitted."*

FY 2003 FINANCIAL COMMITMENT FROM THE INTERNATIONAL COMMUNITY

Members of the international community plan to commit up to a total of $36,000,000 in United States dollars[1] (USD) to fund high-priority infrastructure projects that will support the operation of the CWDF at Shchuch'ye:

- Canada plans to contribute up to $25,400,000 for critical infrastructure projects.
- Italy contributed $2,380,000 for the installation of gas pipeline.
- The United Kingdom (U.K.) intends to provide $6,000,000.

Additional contributions for the Shchuch'ye project in FY 2003 are anticipated. Switzerland has earmarked $11,400,000 in assistance, beginning in 2003, for at least a five-year period. Moreover, the G-8 Global Partnership against the Spread of Weapons and Materials of Mass Destruction is considering a significant contribution to assist the Russian Federation with destruction of its chemical weapons.

FY 2003 FINANCIAL COMMITMENT FROM THE RUSSIAN FEDERATION.

The Russian Federation plans to commit at least $35,000,000 to fund industrial and social infrastructure projects at Shchuch'ye.

[1] The amounts stated in USD are approximate because of the fluctuation of currency exchange rates.

ACRONYMS & ABBREVIATIONS

A&E ..... Audits and Examinations
AICMS ..... Automated Inventory Control & Management System
ALCM ..... Air-Launched Cruise Missile
ASM ..... Air-to-Surface Missile
BNI ..... Bechtel National Services, Inc.
BW ..... Biological Weapons
BWPP ..... Biological Weapons Proliferation Prevention
C or E ..... Conversion or Elimination
CAL ..... Chemical Weapons Destruction Analytical Laboratory
CEDT ..... Cooperative Equipment Disposition Team
CLS ..... CTR Logistics Support
CRDF ..... Civilian Research and Development Foundation
CRI ..... Chemical Research Institute
CTR ..... Cooperative Threat Reduction
CTRIC ..... CTR Integrating Contract
CW ..... Chemical Weapons
CWC ..... Chemical Weapons Convention
CWD ..... Chemical Weapons Destruction
CWDF ..... Chemical Weapons Destruction Facility
CWDSO ..... Chemical Weapons Destruction Support Office
CWPF ..... Chemical Weapons Production Facility
DARPA ..... Defense Advanced Research Projects Agency
DCAA ..... Defense Contract Audit Agency
DCMA ..... Defense Contract Management Agency.
DEF ..... Defense Enterprise Fund
DoD ..... Department of Defense
DOE ..... Department of Energy
DOS ..... Department of State
DTRA ..... Defense Threat Reduction Agency
ERO ..... European Research Office
ESE ..... Emergency Support Equipment
EXBS ..... Export Control and Related Border Security Assistance
FAR ..... Federal Acquisition Regulations
FMC ..... Fissile Material Container
FMSF ..... Fissile Material Storage Facility
FSU ..... former Soviet Union
FY ..... Fiscal Year
FYDP ..... Future Years Defense Plan

GAO ..... General Accounting Office
GFE ..... Government Furnished Equipment
GGCL ..... Government-to-Government Communications Link
GosNIIOKhT ..... State Scientific Research Institute for Organic Chemistry & Technology
GPRA ..... Government Performance and Results Act
GUMO ..... Main Directorate
ICBM ..... Intercontinental Ballistic Missile
INF ..... Intermediate Nuclear Forces
IPP ..... Initiatives for Proliferation Prevention
ISTC ..... International Science and Technology Center
JRIP ..... Joint Requirements and Implementation Plan
JSIG ..... Joint Senior Implementing Group
KIRPC ..... Kazakh Institute for Research on Plague Control
LCC ..... Launch Control Center
LLRW ..... Low Level Radioactive Waste
LMC ..... Loaded Motor Case
LPDS ..... Liquid Propellant Disposition Systems
MC&A ..... Material Control and Accounting
MDB ..... Main Destruction Building
MEDF ..... Missile Elimination and Dismantlement Facility
MinAtom ..... Ministry of Atomic Energy
MinEcon ..... Ministry of Economics
MOA ..... Memorandum of Agreement
MOD ..... Ministry of Defense
MOR ..... Ministry of Railways
NAS ..... National Academy of Sciences
NDAA ..... National Defense Authorization Act
NIIKhSM ..... Sergiev Posad Design Institute
NSAU ..... National Space Agency of Ukraine
NSS ..... National Stockpile Site
NTM ..... National Technical Means
NWS ..... Nuclear Warhead Storage
NWSA ..... Nuclear Weapons Storage Area
NWSS ..... Nuclear Weapons Storage Security
NWTS ..... Nuclear Weapons Transportation Security
OPCW ..... Organization for the Prohibition of Chemical Weapons
OSD ..... Office of the Secretary of Defense
OSDF ..... On-Shore Defueling Facilities
OUSD(P) ..... Office of the Under Secretary of Defense for Policy
PCWSS ..... Planovy Chemical Weapons Storage Site
PDF ..... Propellant Disposition Facility

PRP ..... Personnel Reliability Program
RASA ..... Russian Aviation and Space Agency
RMA ..... Russian Munitions Agency
RTSC ..... Raytheon Technical Services Company
SAIC ..... Science Applications International Corporation
SATC ..... Security Assessment and Training Center
SATS ..... Small Arms Training System
SEC ..... Safety Enhancement Center
SETA ..... Systems Engineering and Technical Assistance
SLBM ..... Submarine Launched Ballistic Missile
SNAE ..... Strategic Nuclear Arms Elimination
SNF ..... Spent Naval Fuel
SOAE ..... Strategic Offensive Arms Elimination
SOW ..... Statement of Work
SPDF ..... Solid Propellant Disposition Facility
SRAI ..... Scientific Research Agricultural Institute
SRCAM ..... State Research Center for Applied Microbiology
SRF ..... Strategic Rocket Forces
SRM ..... Solid Rocket Motor
SSBN ..... Nuclear-Powered Ballistic Missile Submarine
SSE ..... Site Security Enhancements
START ..... Strategic Arms Reduction Treaty
STC ..... Science and Technology Center
STCU ..... Science and Technology Center – Ukraine
SUC ..... South Urals Construction Company
TRSC ..... Threat Reduction Support Center
TSE ..... Transportation Security Enhancements
U.S. ..... United States
UDMH ..... Unsymmetrical Dimethyl Hydrazine
UFF ..... Unified Fill Facility
USACE ..... United States Army Corps of Engineers
USAMRIID ..... United States Army Medical Research Institute of Infectious Diseases
USG ..... United States Government
VAT ..... Value Added Tax
Vector ..... State Research Center of Virology and Biotechnology
WMD ..... Weapons of Mass Destruction
WMD-PPI ..... WMD Proliferation Prevention Initiative
WMDIE ..... Weapons of Mass Destruction Infrastructure Elimination
WSA ..... Weapons Storage Areas

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