

**Russian Nuclear Security and the Clinton Administration's
Fiscal Year 2000 Expanded Threat Reduction Initiative:
A Summary of Congressional Action**

February 2000



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INTRODUCTION AND SUMMARY OF FUNDING RESULTS

In his January 1999 State of the Union speech, President Clinton insisted that the United States must increase its efforts to restrain the spread of nuclear weapons and missiles, in part by expanding "our work with Russia, Ukraine, and the other former Soviet nations to safeguard nuclear materials and technology so they never fall into the wrong hands." The President proposed spending \$4.5 billion over fiscal years 2000-2004, or an increase of "almost two-thirds over the next five years"¹ from previously planned declining budgets.

This proposal was put forward formally as the multi-agency "Expanded Threat Reduction Assistance" (EXTRA) Initiative, to increase funding for U.S. programs working to address the dangers posed by weapons of mass destruction in Russia and the other independent former Soviet states. The proposal, later renamed the Expanded Threat Reduction Initiative (ETRI), did not include any new Federal programs, but aimed instead to provide additional resources for existing efforts.

The ETRI was motivated primarily by the August 1998 Russian ruble collapse and the subsequent accounts of nuclear material security lapses that emerged over the following months.² There was also the risk that continued wage arrearages might tempt nuclear scientists to provide their critical expertise to other markets. Deteriorating economic conditions also cast further doubt on the longer-term ability of the Russian government to meet previous obligations to contribute resources to the dismantlement of weapon systems, construction of the fissile material storage facility at Mayak, and for the plutonium disposition effort. Additional U.S. and international assistance was therefore seen as critical to helping stabilize the Russian nuclear weapons complex, furthering weapons dismantlement, and enhancing safeguards over Russian nuclear materials.

The ETRI package outlined budget increases for programs focused on four broad objectives:

- **Enhancing nuclear security in Russia** by promoting delivery vehicle dismantlement, increasing safeguards over and accounting for nuclear material stockpiles, disposing of fissile material, and halting production of new fissile material;
- **Preventing proliferation of weapons expertise** by developing new jobs for scientists with critical skills, and redirecting weapons of mass destruction (WMD) expertise to commercial R&D and joint ventures;
- **Preventing proliferation of non-nuclear weapons of mass destruction** by assisting in the disposal of Russian chemical weapons, eliminating biological weapons infrastructure, and enhancing export controls; and
- **Military relocation, stabilization, and other security measures** including accelerating the realignment and relocation of Russian forces located outside Russia, ammunition disposal, and other assistance to facilitate military downsizing and reforms.

¹ President William Jefferson Clinton State of the Union Address, January 19, 1999, White House Office of the Press Secretary. On-line version. See: www.whitehouse.gov/WH/New/html/19990119-2656.html

² For example, see "A nuclear crisis in Russia" and "Some horror stories since July" by Kenneth N. Luongo and Matthew Bunn, The Boston Globe, December 29, 1998.

Fuller descriptions of the various programs included in the Initiative are listed by implementing agency on pages 9-15. This paper highlights primarily the congressional appropriations, authorizations, and other legislative actions on programs and activities focused on improving nuclear security in Russia. (The diagram on page 7 illustrates the specific focus or crossover of ETRI activities among three different categories: nuclear security programs concentrating on Russia; nuclear security programs focused on non-Russian republics; and non-nuclear and other security programs in Russia and the NIS.)

The Expanded Threat Reduction Initiative request allocated vital additional resources to key programs and was evidence of a renewed Administration commitment to the U.S.-Russian nuclear security agenda. However, it should be understood that the ETRI promise to increase spending by almost two-thirds was based on a comparison with projected budget declines in this area over the fiscal year (FY) 2000-2004 period, *not* on a comparison with actual FY 1999 levels of spending. (See Charts I and II below.) When measuring the requested FY 2000 increases (by agency) against FY 1999 funding levels, the increases are much smaller except for the State Department, which proposed a 372% increase in funding from the prior year level for its ETRI-related programs (see Chart II).

Indeed, some of the more vital nuclear security activities that had been scheduled to decline in FY 2000, such as the Energy Department's nuclear material protection, control, and accounting (MPC&A) program, were simply restored to roughly FY 1999 funding levels and kept at a nearly flat funding line over the next five years. Two leading programs that concentrate on stabilizing the Russian nuclear weapon complex -- the Initiatives for Proliferation Prevention and the Nuclear Cities Initiative -- were designated for very modest increases, and were also scheduled to be kept at a stable funding level (\$30 million per year) over the next five years. The largest increases were provided to State Department programs, such as the International Science and Technology Center. The Department of Defense also proposed a larger FY 2000 budget for its efforts to support destruction and nonproliferation of WMD in Russia and Ukraine, with the greatest increase scheduled for construction of a chemical weapons destruction facility in Russia.

CHART I: Increases by implementing agency under ETRI

Agency	Original FY 2000-2004 plan for ETRI programs	Proposed FY 2000-2004 ETRI budget plus-ups	Percentage Increase
Department of Defense	\$1,664 million	\$800 million	48%
Department of Energy	824 million	500 million	61%
Department of State	273 million	465 million	170%
TOTAL	\$2,761 million	\$1,765 million	64%

Source: "Expanded Threat Reduction Initiative" briefing by Anne Harrington, Department of State, and Carlos Pascual, National Security Council, March 12, 1999, at the Carnegie Endowment for International Peace.

CHART II: Comparisons between FY 1999 allocations and FY 2000 requests for ETRI activities, by implementing agency

Agency	FY 1999 Enacted	FY 2000 Request	Dollar Increase	Percentage Increase
Department of Defense	\$450.4 million	\$485.4 million	\$35.0 million	7.8%
Department of Energy	238.9 million*	264.3 million	25.4 million	10.6%
Department of State	53.1 million	250.5 million	197.4 million	372%

Source, FY 1999 enacted data: "Expanded Threat Reduction Initiative" briefing by Anne Harrington, Department of State, and Carlos Pascual, National Security Council, March 12, 1999, at the Carnegie Endowment for International Peace

*Excludes a one-time \$200 million supplemental appropriation for plutonium disposition, and a one-time \$325 million supplemental appropriation to sustain the U.S.-Russian Highly Enriched Uranium Purchase Agreement.

In general, the ETRI package was greeted with skepticism on Capitol Hill, though in the end, after a vigorous fight with the Administration and a presidential veto of the foreign operations spending bill, Congress passed most of the Initiative.

Department of Defense

The nonproliferation activities administered by the Defense Department fared well. The Defense Department's ETRI component is the largest of the three agencies involved in the Initiative. Of the \$485.4 million in ETRI funds designated for DOD, virtually all of this (\$475.5 million) was intended to support Cooperative Threat Reduction (CTR, aka "Nunn-Lugar") program activities. Since its founding in FY 1992, the CTR program has provided over \$2 billion to assist dismantlement of strategic nuclear delivery vehicles and chemical weapons, ensure safe and secure storage of Russian nuclear warheads, finance construction of an advanced fissile material storage facility, and facilitate conversion of Russia's three remaining plutonium production reactors, among other activities.

The CTR program generally maintains bipartisan support on Capitol Hill. Senator Richard Lugar (R-IN), one of the program's founders, is still actively involved in shaping the program's implementation, and his influence has helped shelter the CTR from partisan political attacks. Senator Carl Levin (D-MI), Ranking Member of the Senate Armed Services Committee, has also been a leading advocate for extending cooperative nuclear security work with Russia, while Senators Pat Roberts (R-KS) and Jeff Bingaman (D-NM), chair and ranking member of Armed Services' new Emerging Threats and Capabilities Subcommittee respectively, have made significant contributions to threat reduction activities.

The FY 2000 Defense Appropriations Act provides DOD with \$470.4 million of the \$485.4 million request, including \$460.5 million for Cooperative Threat Reduction activities. As discussed below, the Act increases funding for a number of CTR projects and also earmarks \$25 million of the CTR appropriation to assist Russia in submarine dismantlement.

Even though FY 2000 funding for one of CTR's major projects -- construction of a chemical weapons destruction facility in the Russian city of Shchuch'ye -- was strongly opposed by the House and was ultimately cut in the Defense Authorization and Appropriations conference bills, these funds were re-distributed to other CTR projects so that the program received close to its total bottom-line request. The (unrequested) increases to other CTR activities to offset the Shchuch'ye reduction is a sign of robust congressional support for CTR's overall mission and objectives, even in the face of concerns about specific program elements. Representative Mac Thornberry (R-TX) deserves credit for helping maintain healthy support in the House for other CTR programs while funding for Shchuch'ye was slashed. Representative John Spratt (D-SC) has been a long-standing, knowledgeable advocate of nuclear security work with Russia, and also worked effectively behind the scenes to shore up political support for threat reduction efforts.

Department of State

Congressional concerns about the State Department component of the ETRI lead to a difficult battle and the initial veto by President Clinton of the Foreign Operations Appropriations Act passed by Congress in early October. Had the President not vetoed this bill, the ETRI's State Department component would have faced serious cuts, perhaps trimming its programs to below FY 1999 funding levels. Though Senators Biden (D-DE) and Schumer (D-NY) were successful in amending the Senate bill to fully fund ETRI, the final conference agreement left the Initiative's funding picture unclear. The vetoed legislation would have provided just \$735 million of the Administration's \$1.03 billion request for aid to Russia and the New Independent States, and provided no recommendations on the allocation of these funds to ETRI programs.

In its subsequent negotiations with Capitol Hill after the veto, the White House managed to get \$104 million restored to the "NIS Assistance" budget, from which most of the State Department's cooperative security work with Russia is funded.³ This brought the total Russia and NIS aid budget to \$839 million, a compromise amount that was finally passed in the Consolidated Appropriations Act at the end of the congressional session.

However, this compromise still leaves NIS account under the requested amount by \$193 million, and slightly below the FY 1999 appropriations for aid to Russia and the NIS (\$847 million). This now means the State Department will have to decide how to allocate funds among various programs and activities. At time of this writing the State Department has indicated that it will provide \$180 million to its ETRI programs (\$250.5 million was requested), though the exact allocations to individual activities, such as the International Science and Technology Center and export control assistance, is still unknown despite the congressional requirement that this information be submitted in a report due December 15, 1999.

Department of Energy

Congressional ambivalence about the ETRI extended to the Energy Department's budget request as well. Some areas, such as the nuclear materials protection, control, and accounting (MPC&A) program were increased. Others were funded at the requested level. But the Energy Department was dealt a clear setback in its fledgling efforts to help Russia stabilize and

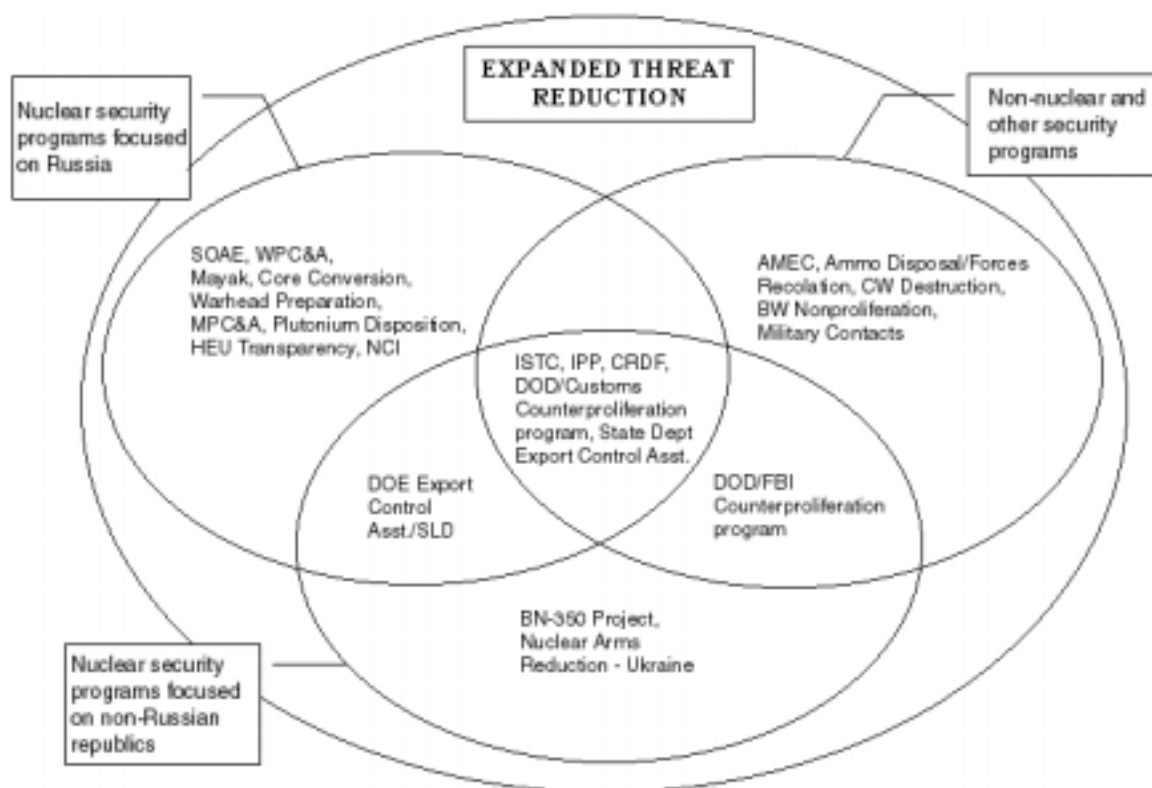
³ Note: The NIS Assistance budget item also provides funding for a variety of non-security activities with Russia, such as child survival assistance and assistance to combat infectious diseases.

downsize its nuclear weapons complex. In particular, Congress expressed its concerns about the new Nuclear Cities Initiative's goals and whether the Energy Department is sufficiently equipped to manage this effort.

The Senate was more receptive than the House to the Energy Department's expanded request for nonproliferation activities, especially in the Appropriations process. Senator Pete Domenici (R-NM), chair of the Senate's Energy and Water Development Subcommittee, continues to be the champion of DOE nonproliferation programs in the upper chamber. While new supporters for Energy Department programs have emerged in the House during the past year, such as Representative Ellen Tauscher (D-CA), the House generally remained much more reserved in its support of the DOE's ETRI component.

The DOE budget debate was in part influenced by investigations of Chinese espionage at DOE's labs. As this controversy brewed, Congress narrowed its attention on reorganizing the agency and strengthening security and counterintelligence capabilities at the labs, perhaps at the expense of a more serious consideration of DOE's nuclear security work with Russia. Although not discussed in this report, Congress passed an extensive overhaul of DOE's Foreign Visitors Program (the foundation for all lab-to-lab cooperation in nonproliferation) and established a new National Nuclear Security Administration, which will oversee all of the Energy Department's future defense, nonproliferation, fissile material disposition, and naval reactor activities.

While the budget cuts to DOE's programs will delay more intensive short-term efforts to develop alternative employment for Russia's former nuclear weapons scientists, the DOE restructuring plan combined with the new restrictions on foreign visitors to U.S. labs could endanger effective long-term nonproliferation collaboration with Russia. Much of the progress that has been made in this area with Russia, and the basis for all future cooperation, depends on preserving meaningful U.S.-Russian lab-to-lab engagement. The fallout from the Chinese espionage scandal threatens to raise new barriers to this engagement and could ruin chances for further openness and transparency in the Russian complex.



Department of Defense FY 2000 Budget Request in the Expanded Threat Reduction Initiative

PROGRAM	BUDGET REQUEST	FINAL APPROPRIATION
<u>Strategic Offensive Arms Elimination (SOAE), Russia:</u> Funds will be used to assist Russia in: eliminating 480 SLBM launchers and 31 ballistic missile submarines; eliminating 254 SS-18 heavy ICBMs; dismantling 152 ICBM silos (44 SS-11/13, 12 SS-17, and 96 SS-18); disposing of 30,000 metric tons of ballistic missile liquid propellant; and eliminating solid rocket motors from SS-24, SS-25, and SS-N-20 missiles.	\$157.3 million	\$157.3 million
<u>Strategic Nuclear Arms Elimination, Ukraine:</u> These funds will help Ukraine facilitate implementation of the START I Treaty. Funding would support elimination of strategic nuclear delivery systems, including heavy bombers, air-launched cruise missiles, SS-24 ICBMs and silos, and a number of other non-deployed ICBMs (SS-11s, SS-17s, and SS-19s).	\$33.0 million	\$35.0 million
<u>Preparation of Dismantled Warheads for Storage:</u> These funds will be used to assist Russia in the conversion of plutonium warhead pits into unclassified shapes/forms, and facilitate other processing and packaging, before the material would be placed in the Mayak fissile material storage facility.	\$9.3 million	\$9.3 million
<u>Nuclear Warhead Protection, Control, and Accounting (WPC&A) and Transport:</u> The purpose of this activity is to enhance security at Russian Ministry of Defense storage sites containing nuclear weapons scheduled for dismantlement and destruction. These funds will facilitate establishment of a warhead Security Assessment and Training Center at Sergiev Posad, and enhancements at up to 50 sites throughout Russia. In addition to fencing, sensors, and other physical security equipment, this program also provides drug and alcohol testing equipment and polygraphs to detect internal, personnel-related security risks at the storage sites.	\$55.2 million	\$99.2 million
<u>Construction of the Mayak Fissile Material Storage Facility:</u> These funds provide design assistance, as well as equipment, materials and training for construction of a 50,000 container fissile material storage facility. The first depot of the facility, with a 25,000 container storage capacity, is scheduled to be completed by the third quarter, FY 2002.	\$64.5 million	\$64.5 million
<u>Plutonium Production Reactor Core Conversion:</u> Under a 1997 agreement, the U.S. is helping facilitate the conversion of Russia's three remaining plutonium production reactors at the closed cities of Tomsk-7 and Krasnoyarsk-26 so that they will no longer produce weapons grade plutonium. Originally intended to be complete by the end of 2000, this project is now in question as the Russian government has proposed closing the reactors and developing alternative power sources instead.	\$20 million	\$32.2 million

<u>Chemical Weapons (CW) Destruction:</u>	\$130.4 million	\$20 million
To provide for the creation of the first pilot Russian Chemical Weapons Destruction Facility that will be able to destroy 500 metric tons of CW munitions a year. The project includes establishing the site, design, equipment acquisition, construction and start-up of the facility, and enhancing physical security at CW storage sites.		
<u>Biological Weapons (BW) Proliferation Prevention:</u>	\$2.0 million	\$14 million
This project supports joint U.S.-Russian/NIS research at former Soviet BW institutes on biodefense, enhancement of physical security at Russian/NIS sites containing biological agents of concern, and the elimination of BW infrastructure. The \$2 million FY 2000 request would initiate physical security efforts at two non-military sites with biological agents of concern.		
<u>Defense and Military Contacts:</u>	\$2.0 million	\$2.0 million
Funding is used to nurture relationships between the defense and military communities of the U.S. and Russia. The project assists Russia in restructuring and downsizing its defense establishment; encourages support for reform; and helps the Russian military to better understand western society, including civil-military relations.		
<u>Other Projects:</u>	\$1.8 million	\$2.0 million
A portion of these funds is used to conduct audits and examinations to ensure that CTR money is being used for intended purposes.		
<u>Submarine Dismantlement:</u>	\$0	\$25.0 million
Funding was not requested for activities in this area, but the Defense Appropriations Act includes \$25 million to support dismantling and disposal of nuclear submarines in the Russian Far East.		
Subtotal, Cooperative Threat Reduction activities	\$475.5 million	\$460.5 million
<i>Non-CTR activities:</i>		
<u>Arctic Military Environmental Cooperation (AMEC):</u>	\$5.9 million	\$5.9 million
This program helps mitigate environmental damage caused by military operations in Russia's Arctic region, concentrating on areas such as radioactive waste processing, spent nuclear fuel storage, and radiation safety and monitoring.		
<u>DOD/Customs and DOD/FBI Counterproliferation Program:</u>	\$4.0 million	\$4.0 million
These programs, led by DOD in concert with the U.S. Customs Service and the FBI, provide training, technical assistance, and equipment to law enforcement, border, and customs officials in the NIS to deter, detect, and prevent smuggling of weapons of mass destruction.		
Total request, Defense Department ETRI component	\$485.4 million	\$470.4 million

Sources: Expanded Threat Reduction Initiative summary sheet provided by the CTR office; FY 2000/2001 Biennial Budget Estimate: Operation and Maintenance Defense-Wide, Office of the Secretary of Defense, February 1999; Administration document, "Expanded Threat Reduction Initiative," March 9, 1999; CTR activity descriptions listed on CTR website (www.ctr.osd.mil); Information on AMEC at www.denix.osd.mil/denix/Public/Intl/AMEC/amec.html

Department of Energy FY 2000 Budget Request in the Expanded Threat Reduction Initiative

PROGRAM	BUDGET REQUEST	FINAL APPROPRIATION
<u>Nuclear Material Protection, Control, and Accounting (MPC&A):</u> This budget (a small increase from the \$140.1 million allocated in FY 1999) will allow DOE to: continue installation of security, control, and accounting equipment at sites in Russia where weapon-usable nuclear materials are stored, and at Russian civilian nuclear and regulatory-related sites; conduct training and education projects, and undertake other cooperation to sustain security upgrades over the long-term; enhance security upgrades in the transportation of nuclear materials, and expand MPC&A work with the Russian Navy.	\$145.0* million	\$150.0 million
<u>Export Control Development and Second Line of Defense (SLD)**:</u> The Energy Department requested \$2.515 million to assist NIS countries in establishing and enhancing nuclear material and technology export control systems. The funds will be used to help NIS officials establish the necessary legal and regulatory framework for effective export control regimes, and train and equip Russian customs service and border police to detect nuclear smuggling.	\$2.5 million	\$2.5 million
<u>Plutonium Disposition:</u> DOE requested \$25 million (unchanged from the FY 1999 level) for U.S.-Russian plutonium disposition activities. (The full Materials Disposition budget request is \$200 million. The remainder of funds will be used to proceed with the U.S. program, including design of a plutonium pit disassembly and conversion facility, a MOX fabrication facility, and an immobilization facility, as well as for other domestic plutonium-related activities). The \$25 million will be used to conduct small-scale tests and demonstrations with Russia, conduct oversight of Russian plutonium disposition plans, and to continue work toward an official agreement specifying Russian disposition rates, facilities, and techniques.	\$25.0 million	\$30.0 million
<u>Nuclear Cities Initiative (NCI):</u> DOE requested \$30 million to continue this program, founded in 1998, which seeks to facilitate the downsizing and redirection of the Russian nuclear weapons complex. Focused on the ten "closed cities" of the complex, the Nuclear Cities Initiative aims to develop alternative employment for 30,000-50,000 Russian nuclear weapon scientists and technicians over the next several years. The request is an increase from the \$15 million allocated in FY 1999.	\$30.0 million	\$7.5 million
<u>Initiatives for Proliferation Prevention (IPP):</u> The IPP program facilitates commercial joint ventures between U.S. businesses and Russian chemical, biological, and nuclear weapon institutes. While it shares a similar mission to the Nuclear Cities Initiative and will work in tandem with that program, the IPP focuses primarily on technology commercialization projects. At the end of 1998, IPP had sponsored over 400 projects employing about 4,500 weapon scientists. Funding of \$25 million was allocated to the program in FY 1999.	\$30.0 million	\$22.5 million

<u>Highly Enriched Uranium (HEU) Purchase Agreement Transparency:</u>	\$15.8 million***	\$15.8 million
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The DOE requested \$15.8 million to implement HEU transparency activities. These activities provide confidence that Russian low-enriched uranium (LEU) sold to the United States Enrichment Corporation (USEC) under the Highly-Enriched Uranium Purchase Agreement is derived from HEU removed from dismantled Russian weapons. This program will facilitate: monitoring at the Russian and U.S. facilities subject to the agreement; analysis of information to provide confidence Russia is converting weapons HEU into LEU; conducting 24 special monitoring visits to Russian HEU conversion and down-blending facilities; fabricating and installing blend-down monitoring devices on Russian processes; and assisting development and negotiation of new transparency measures.

<u>BN-350 Project, Kazakhstan****:</u>	\$16.0 million	\$16.0 million
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Funds will be used to continue packaging spent fuel bearing weapon-grade plutonium at Kazakhstan's BN-350 breeder reactor on the Caspian Sea. Once packaged, the program supports shipment of the material to a more secure site at Semipalatinsk in Northern Kazakhstan. \$15.0 million was allocated in FY 99 for this activity.

Total request, Energy Department ETRI component	\$264.3 million*****	\$244.3 million
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Sources: Briefing by Rose Gottemoeller, Director, Office of Nonproliferation and National Security, U.S. Department of Energy, February 1, 1999; Briefing slides: "Congressional Briefing, Expanded NIS Threat Reduction Initiative, February 1999."; Administration document, "Expanded Threat Reduction Initiative," March 9, 1999; Energy Department FY 2000 budget, including detailed budget justifications.

*The actual DOE FY 2000 budget request for MPC & A is \$145.0 million, although other Administration documents list the request as \$145.4 million

**No separate funding is requested for SLD. According to ETRI documents, funds will be allocated for SLD in FY 2000 from within the MPC & A budget for continued development of the SLD activities to provide equipment for one additional site and support training. Separately, an agreement has been reached in which the State Department's Nonproliferation and Disarmament Fund will provide \$3 million in FY 2000 funding for SLD activities. See endnote vii.

***The actual DOE request for HEU transparency work is \$15.8 million (according to its budget documents), although other Administration documents cite a \$15.0 million request.

****Note: In a February 1, 1999 briefing on DOE activities under ETRI, Assistant Energy Secretary Gottemoeller stated that \$16 million would support DOE warhead dismantlement and transparency activities, and did not mention the BN-350 work as an Initiative component. Conversely, an Administration document on ETRI dated March 9, 1999 indicates that \$16 million will be sought in FY 2000 for BN-350 work, and does not make any reference to an expanded level of DOE work on warhead dismantlement and transparency under the Initiative.

While preparing this report, DOE representatives told RANSAC that "warhead dismantlement transparency was never a part of the ETRI package; it was always \$16 million for Kazakhstan [the BN-350 project]." It was not explained why this work was excluded from ETRI. In any case, the Energy Department did request FY 2000 funds (under the arms control budget item) to continue its work in defining a warhead dismantlement and transparency regime. A \$16 million segment of the budget for these activities (the full dismantlement and transparency budget request is \$27.5 million) would be used to continue lab-to-lab contracts with Russia, to enable demonstrations of their warhead dismantlement and transparency technologies and concepts to U.S. experts. (The remainder of the budget would be used to support domestic activities in this area, including the Department's efforts to initiate a START III concept for warhead elimination, via its joint Chairmanship of the interagency task force on warhead dismantlement.)

*****Note, there is a small discrepancy between this figure and a funding level cited by the White House. According to a FY 2000 budget summary released by the White House, "The [FY 2000] budget provides &. \$276 million (up \$39 million from 1999) for the Department of Energy WMD programs in the NIS." See the "Foreign Affairs" section of "President Clinton and Vice President Gore's FY 2000 Budget: Preparing America for the 21st Century," Office of the Press Secretary, The White House, February 1, 1999. Administration officials familiar with the ETRI could not identify a particular reason for this difference.

Department of State FY 2000 Budget Request in the Expanded Threat Reduction Initiative

PROGRAM	BUDGET REQUEST	FINAL ALLOCATION
<u>Export Control and Border Security Assistance:</u> Funds will be used to support training, equipment, and services to Russia to: (1) help improve Russian implementation of WMD regime-specific export controls (nuclear, MTCR, Australia Group and Wassenaar-related controls); (2) upgrade nuclear detection and identification capabilities at Russia's borders; (3) develop and increase the effectiveness of Russia's internal compliance programs, particularly in the aerospace sector; (4) improve Russian implementation of dual-use export controls; (5) increase law enforcement cooperation and expand programs for working level direct counterpart exchange programs and training; and (6) help develop and improve Russian controls on conventional weapons.	\$60.97 million (\$18 million for Russia)	Not Available**
<u>Science Centers Collaboration:</u> The International Science and Technology Center (ISTC) in Moscow and the Science and Technology Center in Ukraine (STCU) provide short-term grants and contracts that enable former Soviet weapon scientists and experts to direct their efforts toward civilian activities. Part of the funding increase under ETRI will be used to expand ISTC activities in the nuclear cities, in concert with the Nuclear Cities Initiative. The State Department estimates that expanded funding would support an additional 8,000-10,000 additional former Soviet weapon scientists, engineers, and technicians.	\$95.0 million (\$65 million for Russia)	Not Available**
<u>Civilian Research and Development Foundation (CRDF):</u> The CRDF is a non-governmental, non-profit foundation created by the U.S. government to respond to the declining status of science and engineering in Russia and the NIS. One of its primary missions is to advance the conversion of weapon scientists to civilian work. Since its founding in 1995, CRDF has made over 300 awards for research collaborations, involving more than 2,000 NIS and 400 American scientists. Under its travel program, CRDF supports visits to the U.S. by NIS researchers seeking American collaborators, and its "Next Step to Market" program supports exchanges to help bring CRDF projects to the commercial marketplace.	\$23.5 million (\$12 million for Russia)	Not Available**
<u>Redirecting Biological Weapon Scientists:</u> This program increases scientific collaborations and provides equipment and training assistance to redirect scientists in former Soviet biological weapon (BW) facilities to civilian commercial, agricultural, and public health work. The State Department implements this program in collaboration with the Departments of Agriculture and Health and Human Services (including the Centers for Disease Control, National Institutes of Health, and the Food and Drug Administration).	\$28.0 million (unspecified for Russia)	Not Available**

Ammunition Disposal and Forces Relocation:

This project provides support to for ammunition disposal and force relocation assistance to Russia, Georgia, and Moldova to cover the costs of Russian military realignment outside of Russia.

\$43.0 million Not Available**
 (\$3.0 million for
 Russia)

Total request, State Department ETRI component

\$250.47 million* **\$180 million****
 (\$98.0+ million (individual program
 for Russia) allocations
 unknown)

Sources: March 12, 1999 "Expanded Threat Reduction Initiative" briefing by Anne Harrington, Department of State, and Carlos Pascual, National Security Council, at the Carnegie Endowment for International Peace; Briefing slides: "Congressional Briefing, Expanded NIS Threat Reduction Initiative, February 1999."; Administration document, "Expanded Threat Reduction Initiative," dated March 9, 1999; State Department FY 2000 budget.

* Of this total, \$241.0 million is requested to come from the "NIS Assistance" category of the foreign spending budget, while \$9.47 is to be allocated from the "Export Control Assistance" line item of the "Nonproliferation, Anti-Terrorism, Demining, and Related Activities" category of the same budget.

** While the State Department indicated that it will contribute a total of \$180 million in FY 2000 funding to ETRI, no decision had been made as of February 18, 2000 on the division of that amount to individual programs.

CONGRESSIONAL ACTION ON DEFENSE DEPARTMENT ETRI PROGRAMS

General remarks on the Expanded Threat Reduction Initiative

Congressional authorizers for the Department of Defense expressed reservations about the possible duplication of efforts under the Expanded Threat Reduction Initiative. The FY 2000 Defense Authorization Act requires the President to submit no later than March 31, 2000 a report describing the Administration's plans to ensure interagency coordination in carrying out ETRI.

Cooperative Threat Reduction (CTR) activities

Funding Allocations:

The FY 2000 Defense Authorization Act approved the entire \$475.5 million request for CTR activities, while the Defense Appropriations Act trimmed this request by \$15 million.

Both authorizers and appropriators⁴ increased funding levels for a number of CTR program activities by re-allocating the funds cut from the request to construct a Russian chemical weapon destruction facility at Shchuch'ye. Significant increases were made in the following areas:

- Weapons transportation and storage security activities (+\$59.0 million from the authorizers, +\$44.0 million from the appropriators);
- Preventing biological weapons proliferation (+\$10.0 million from the authorizers, +\$12.0 million from the appropriators);
- Strategic offensive arms elimination in Russia and Ukraine (+\$28.8 million from the authorizers; +\$2.0 million from the appropriators); and
- Cooperation in eliminating Russian weapon grade plutonium production, including the effort to convert the cores of Russia's last three remaining plutonium production reactors (+\$12.2 million from the authorizers, +\$12.2 million from the appropriators).

Submarine Dismantlement:

The Defense appropriators also earmarked \$25 million to be set aside exclusively for assisting Russia in submarine dismantlement. These funds will be used to support the dismantling and disposal of nuclear submarines and submarine reactor components in the Russian Far East.

⁴ "Authorization" legislation permits a Federal agency to undertake a certain activity and instructs it to manage or implement it in a certain way. The authorizers can recommend and set limits on the levels of funding for government programs, but an authorization does not make money available. It is the "Appropriations" legislation that generally provides levels of "budget authority," or the amount of money that can be spent by Federal programs. In this report, "Authorizers" refers to members of the House and Senate Armed Services Committees, who authorize nonproliferation programs of the Defense and Energy Departments, and the House International Relations Committee and the Senate Foreign Relations Committee that oversee the State Department authorizing legislation. "Appropriators" refers to members of the House and Senate Appropriations Committees, in particular members of the three relevant subcommittees -- Defense, Energy and Water Development, and Foreign Operations.

Chemical Weapons Destruction:

The most significant funding setback for CTR was in the chemical weapons (CW) destruction area. The defense authorizers and appropriators drastically reduced funding for this activity from the requested amount (from \$130.4 million to \$20.0 million). Moreover, the Defense Authorization Act stated that FY 2000 funds could only be spent to enhance security at chemical weapon storage sites. Funding for any further planning, design, or construction of a chemical weapon destruction facility was prohibited. (See endnote iv.)

For the past several years, Congress had expressed doubts about the CTR-led effort to design and construct a pilot chemical weapons destruction facility to be built near Russia's Shchuch'ye chemical weapons depot. In addition to destroying the weapons stored at that depot, the facility is intended to prove a destruction technology that could be used to eliminate weapons at other storage sites and to help Russia comply with the Chemical Weapons Convention (CWC).

However, a critical report issued by the U.S. General Accounting Office (GAO) in April⁵ convinced defense authorizers and appropriators to scale back the Shchuch'ye project, and re-orient CTR funds from CW destruction work and into enhancing CW storage and security.

Among the GAO's criticisms of the Shchuch'ye project were delays in completing the destruction facility's conceptual design, Russian failure to promptly provide specifications on the weapons to be destroyed, and Russian delays in completing related social and industrial infrastructure projects.

Perhaps the most important GAO finding was that even if the Shchuch'ye destruction facility were completed, large CW stockpiles would remain at other locations in Russia, and that these stockpiles would not likely be addressed for many years. The GAO concluded that "Russia's faltering economy and limited international assistance raise serious doubts" about the ability to construct additional facilities to destroy weapons at other storage sites and help Russia meet its CWC targets.

Mayak Fissile Material Storage Facility

This same General Accounting Office report evaluated issues surrounding construction of the Mayak storage facility for fissile materials removed from dismantled Russian warheads. The GAO noted that because of Russian funding shortfalls, the U.S. would bear almost the entire cost of constructing the facility, and that the cost had increased by \$138 million over the original estimate of \$275 million. The GAO also estimated that the final facility would be completed three years later than originally planned, and would consist of only one building with a 25,000 container capacity instead of the two-wing 50,000 container capacity complex originally envisioned.

⁵ U.S. General Accounting Office, *Weapons of Mass Destruction: Effort to Reduce Russian Arsenals May Cost More, Achieve Less Than Planned*, GAO/NSIAD-99-76, April 1999.

In addition to the cost and scheduling issues, the GAO underscored the difficulty DOD has experienced in negotiating access and transparency at Mayak to verify that material placed in the facility is of weapon origin and is not being withdrawn for use in new weapons.

In an earlier report, the GAO suggested that Congress link DOD's obligation of CTR funds for Mayak construction to the completion of a formal transparency agreement with Russia.⁶ Congress subsequently prohibited DOD from obligating any FY 1998 funds for Mayak until 15 days after the Defense Department had notified Congress that the U.S. and Russia had entered into a transparency agreement. The transparency negotiations for the Mayak facility began in October 1997, and by February 1999 an agreement had been partially drafted. The GAO concluded that "DOD officials & could not predict when the agreement would be completed."

The Defense Authorization Act approved the full \$64.5 million request for the Mayak facility, however Congress attached several new restrictions on how the funding is to be utilized.

While the first wing of the Mayak facility is nearly complete, the GAO's findings convinced the defense committees that the future of the second wing should be tied to progress on the transparency agreement. The Defense Authorization Act prohibits use of FY 2000 funding for construction or design of the second Mayak wing until 15 days after the Defense Secretary submits notification to Congress that Russia and the U.S. have signed a verifiable transparency agreement to ensure material stored at the facility is of weapons origin. Moreover, none of the prior year money authorized to be appropriated may be used for construction of the second wing until the Defense Department provides the following three items to Congress: a certification that additional capacity is necessary at the facility to store Russian weapons-origin fissile material; a detailed cost estimate for the second wing; and a certification that the transparency agreement described above has been signed by the U.S. and Russia. This stipulation does, however, permit prior year money to be used for planning and design of the second wing without restriction.

While Congress did not rule out funding for the second wing altogether, these new limitations reflect two fundamental congressional concerns about the importance and viability of the Mayak facility. The first issue is Congress's suspicion that the rationale for the fissile material storage facility -- the storage of weapons-origin material -- may be eroding, and that the second wing may provide capacity exceeding the amount of material scheduled to come from dismantled weapons. From the congressional perspective, there seems to be no perceived benefit in opening the facility to weapons-grade, non-weapons-origin materials, though such storage would further improve fissile material security in Russia.

The second issue is the question of how much Russia will contribute to the project. The original agreement called for Russia to pay for half of the first wing. Since the 1998 Russian financial crisis, it has become much more difficult for Russia to meet this obligation, and it is now hoped that Russia will pay half the cost of a two-winged facility. While the defense authorizers did not explicitly state their doubts about Russia's ability or willingness to meet this new commitment, these concerns are embedded in the condition that DOD provide a detailed cost estimate for the second wing before using any funds to proceed with construction.

⁶ U.S. General Accounting Office, *Weapons of Mass Destruction: Status of the Cooperative Threat Reduction Program*, GAO/NSIAD-96-222, September 27, 1996.

CTR cost sharing

The GAO study of Mayak and the CW destruction effort also provoked congressional concerns about the increasing share of CTR program costs being borne by the United States generally, as a result of Russian financial difficulties. While doubts about Russia's ability to contribute to cooperative security projects did not cause Congress to reject support for any CTR project entirely, the Defense Authorization Act required that the Defense Department submit a report by the end of 1999 that: (1) explains the strategy to encourage recipient countries to contribute financially to the CTR effort; (2) prioritizes CTR projects; (3) identifies limitations the U.S. has imposed or will impose on CTR assistance; and (4) describes financial assistance to CTR programs from other countries.

Russian tactical nuclear weapons

As in prior years, Congress voiced its concern about Russia's tactical nuclear weapon stockpile. In a sense of Congress provision in the CTR section of the Defense Authorization Act, the President was urged to continue to work with Russia to gain further transparency into Russian tactical nuclear forces and to achieve reductions in the Russian tactical nuclear stockpile. In addition, the Act requires that analyses of Russia's tactical nuclear arsenal be included in all future annual CTR accounting reports. Among other issues, the assessments are to include estimates regarding current types, numbers, yield, viability, locations and deployment status of the tactical warheads; current and projected threats of the weapons' theft, sale, or unauthorized use; and summaries of past, current, and future cooperative U.S. efforts to account for, secure, and reduce Russia's tactical nuclear weapons and their associated fissile material.

Funding results for Department of Defense programs

Program	Budget Request	House: Appropriation <i>Authorization</i>	Senate: Appropriation <i>Authorization</i>	Conference Report: Appropriation <i>Authorization</i>	Appropriation, <i>Authorization</i> vs. Budget Request
Strategic Offensive Arms Elimination/Russia	\$157,300,000	\$177,300,000 <i>\$177,300,000</i>	\$157,300,000 <i>\$157,000,000</i>	\$157,300,000 <i>\$177,300,000</i>	No change +\$20,000,000
Strategic Offensive Arms Elimination/Ukraine	33,000,000	43,000,000 <i>43,000,000</i>	33,000,000 <i>33,000,000</i>	35,000,000 <i>41,800,000</i>	+2,000,000 +8,800,000
Warhead Dismantlement	9,300,000	9,300,000 <i>9,300,000</i>	9,300,000 <i>9,300,000</i>	9,300,000 <i>9,300,000</i>	No change <i>No change</i>
Weapons Transportation Security ⁱ	0	15,200,000 <i>15,200,000</i>	15,200,000 <i>15,200,000</i>	15,200,000 <i>15,200,000</i>	+15,200,000 +15,200,000
Warhead Transportation and Storage ⁱⁱ	55,200,000	90,000,000 <i>90,000,000</i> (For weapons storage security)	40,000,000 <i>40,000,000</i> (For weapons storage security)	84,000,000 <i>99,000,000</i> (For weapons storage security)	+28,800,000 +43,800,000
Mayak Fissile Storage Facility ⁱⁱⁱ	64,500,000	60,900,000 <i>60,900,000</i>	64,500,000 <i>64,500,000</i>	64,500,000 <i>64,500,000</i>	No change <i>No change</i>
Plutonium Core Conversion	20,000,000	20,000,000 <i>20,000,000</i>	20,000,000 <i>20,000,000</i>	32,200,000 <i>32,200,000</i> (For cooperative program to eliminate weapon grade plutonium)	+12,200,000 +12,200,000
Chemical Weapons Destruction ^{iv}	130,400,000	24,600,000 <i>24,600,000</i>	130,400,000 <i>130,400,000</i>	20,000,000 <i>20,000,000</i> (For enhancing chemical weapon storage site security)	-110,400,000 -110,400,000
Biological Weapons Proliferation Prevention	2,000,000	14,000,000 <i>2,000,000</i>	2,000,000 <i>2,000,000</i>	14,000,000 <i>12,000,000</i>	+12,000,000 +10,000,000
Defense & Military Contacts	2,000,000	0 <i>0</i>	2,000,000 <i>2,000,000</i>	2,000,000 <i>2,300,000</i>	No change +300,000
Other Projects	1,800,000	1,800,000 <i>1,800,000</i>	1,800,000 <i>1,800,000</i>	2,000,000 <i>1,800,000</i>	+200,000 <i>No change</i>
Submarine Dismantlement ^v	0 <i>0</i>	0 <i>0</i>	[25,000,000] <i>0</i>	25,000,000 <i>0</i>	+25,000,000 <i>N/A</i>
Total CTR	\$475.5 million	\$456.1 million \$444.1 million	\$475.5 million \$475.2 million	\$460.5 million \$475.5 million	-\$15 million No change
<i>Non-CTR programs:</i>					
AMEC ^{vi}	5,885,000	5,885,000 <i>5,885,000</i>	5,885,000 <i>5,885,000</i>	5,885,000 <i>5,885,000</i>	No change <i>No change</i>
DOD/FBI, DOD/Customs Counterproliferation ^{vii}	4,000,000	4,000,000 <i>4,000,000</i>	4,000,000 <i>4,000,000</i>	4,000,000 <i>4,000,000</i>	No change <i>No change</i>
Total DOD ETRI	\$485.4 million	\$466.0 million \$454.0 million	\$485.4 million \$485.1 million	\$470.4 million \$485.4 million	-\$15 million No change

CONGRESSIONAL ACTION ON ENERGY DEPARTMENT ETRI PROGRAMS

Initiatives for Proliferation Prevention (IPP) and the Nuclear Cities Initiative (NCI)

The most significant cuts in the Energy Department's request came in the NCI and IPP programs. The majority of the congressional concerns were prompted by a General Accounting Office study of the programs that was issued in February 1999.⁷ The GAO study focuses largely on the IPP program, but it also touched on issues related to the implementation of the Nuclear Cities Initiative. In brief, the GAO found that: almost two-thirds of Initiatives for Proliferation Prevention funds were spent at the Energy Department labs that provide oversight of the program; Russia is taxing some of this assistance; DOE and its labs did not adequately review all IPP projects; Russian scientists still working on weapons of mass destruction are receiving program funds; and only a small number of IPP projects have reached the commercialization phase. With respect to the Nuclear Cities Initiative, the GAO expressed uncertainty about the ability of NCI to achieve its goals, based on the IPP's experiences and Russia's difficult financial condition.⁸

Actions by appropriators

The Energy and Water Development Appropriations Act cut funding for the IPP program from the requested \$30 million to \$22.5 million, and approved only \$7.5 million of the \$30 million requested for NCI. (However, the Defense Authorization Act provided some latitude in NCI funding by stating that up to \$40 million could be spent on the IPP and NCI combined. It is now up to DOE to determine how much will be spent on the Nuclear Cities Initiative, and it is expected that the Energy Department will seek authority to reprogram FY 2000 funds from other areas to support the NCI at a higher level.)

While the Senate appropriators had little dispute with either program, and voted to fully fund the IPP and NCI at the requested levels, the House appropriators expressed serious dissatisfaction and concerns about the management and implementation of both.

For IPP, the House Energy and Water bill approved \$22.5 million, and directed that no more than 20% of program funds be spent in the United States. The domestic spending limitation is a response to the GAO's criticisms that an excessive amount of IPP funds have gone to DOE laboratories rather than Russian scientific institutes.

Regarding the Nuclear Cities Initiative, the House appropriators called into question DOE's ability to effectively implement a commercial and business development program of this magnitude. Questioning the DOE's strategy of relying solely on the national laboratories to implement the NCI, the House Appropriations Committee did not "believe . . . the laboratories are useful guides for marketing expertise and successful commercial ventures." Instead, the Committee urged the Energy Department to "work with other Federal agencies that are

⁷ U.S. General Accounting Office, *Nuclear Nonproliferation: Concerns with DOE's Efforts to Reduce the Risks Posed by Russia's Unemployed Weapons Scientists*, GAO/RCED-99-54, February 1999.

⁸ For a synopsis of the GAO study and a counter-critique, see: "Getting it Right," Kenneth N. Luongo and William E. Hoehn, III, *The Bulletin of Atomic Scientists*, May/June 1999.

implementing similar programs in Russia to ensure that [business expertise and marketing] training is provided immediately." The House Committee rejected virtually the entire budget request, providing only \$1.5 million in FY 2000, and vowed not to expand funding until "some tangible results" of the NCI were demonstrated.

Actions by authorizers

The February GAO report also had a major influence on the language adopted by the House and Senate defense authorizers in their final conference report. The defense bill stated that its conferees were "troubled by the disproportionately large share of IPP funds that have remained in the DOE laboratories," and mandated that no more than 35 percent of overall program funding could be spent in the labs during FY 2000. The bill also prohibits the use of funds for supplementing the pay of Russian scientists still engaged in missile, chemical, or biological weapons work, and restricts expenditure of funds to Russian scientists or institutes that the Energy Secretary determines has made a business or scientific contact with a "country of proliferation concern."⁹

In addition, the defense authorization conference report requires DOE to establish new, enhanced review procedures for IPP projects to ensure that sensitive technologies and information are not being transferred under the program, and that IPP project results are not contributing inadvertently to Russia's WMD programs. The Energy Secretary is to submit a report to Congress on these procedures thirty days after they have been established.

Furthermore, the Energy Department is obligated to more thoroughly evaluate IPP projects for their commercial potential, and terminate those projects that are unlikely to achieve their intended commercial objective. However, the authorizers did not spell out specific criteria that DOE should apply in making the evaluations, nor did it define time frames in which IPP projects should be expected to achieve their commercial goals.

Finally, the Defense Authorization Act would prohibit use of IPP funds to pay Russian taxes, unless such payment is unavoidable. In such cases, after payment is made, the DOE is required to submit a report to the congressional defense committees explaining the circumstances that made the tax payment unavoidable, and how additional funds will be provided to IPP to offset the tax amounts.

Regarding the NCI, the Defense Authorization Act barred obligation of NCI funds until the Energy Secretary certifies to Congress that Russia has agreed to shut down facilities located in the nuclear cities. The purpose of this provision is to provide a higher degree of certainty that NCI funds will go to support the peaceful work of excess weapon scientists and workers, and to ensure that the program is targeted on eliminating excess capacity in the Russian nuclear complex.

While the NCI's original plan was to extend its program to three additional cities in FY 2000 (beyond the first three targeted for support last year: Sarov, Snezhinsk, and Zheleznogorsk), the

⁹ The designation of countries of proliferation concern is determined by the Director of Central Intelligence, but is widely believed to include countries such as Iran, Iraq, North Korea, Libya, and Syria among others.

defense authorizers confined NCI activities to the original three cities plus two serial production plants for FY 2000.¹⁰

Similar to the provision requiring evaluations of IPP's commercial potential, the Energy Department is instructed to analyze the potential economic impact of the programs proposed under the NCI before providing any funds, and to decline support for any projects that are not likely to lead to the creation of jobs in the closed cities.

The defense authorizers also expressed concerns about the coordination between government departments in this effort, and asked the DOE to prepare a report by the beginning of 2000 explaining the level of interagency participation in the Initiative and the contribution each agency has made.

Finally, for both the Initiatives for Proliferation Prevention and the Nuclear Cities Initiative, the Defense Authorization Act requires the Energy Department to submit a report to the House and Senate Armed Services Committees by January 2000 responding to several issues related to both programs. To be included in the report are (1) the strategic plan for the IPP and NCI, spelling out specific program objectives and the means of measuring their achievement; (2) an inventory of the most successful IPP projects, including the names of scientists and institutes participating in each, as well as the number of jobs created by each project; and (3) the target list of institutes and scientists that IPP and NCI hope to engage, including descriptions of current WMD and defense activities at each Russian location and the proposed IPP/NCI activities for those sites.

Plutonium Disposition

Although the final Energy and Water Development Appropriations Act awarded plutonium disposition activities as a whole less than the requested amount, the decreases were targeted only for components of the U.S. disposition effort (\$25 million of the total \$200 million request is designated to assist the Russian plutonium disposition effort). The Act provides \$173,235,000 for fissile materials disposition instead of the \$190 million proposed by the House and the \$205 million provided in the Senate bill.

Plutonium Disposition Funding Summary			
	House	Senate	Conference
<i>DOE Request</i>	<i>\$200 million</i>	<i>\$200 million</i>	<i>\$200 million</i>
Immobilization Facility	-----	-----	-\$21.765 million
Pit Disassembly and Conversion Facility	-\$10 million	-----	-\$10 million
Gas Reactor	-----	+\$5 million	+\$5 million
<i>Total</i>	<i>\$190 million</i>	<i>\$205 million</i>	<i>\$173.235 million</i>

In mid-August, the Energy Department announced that it would move the start date of the design of the plutonium disposition immobilization facility to 2001. The shift in schedule was

¹⁰ The Russian Ministry of Atomic Energy has declared an interest in closing two serial production facilities -- at Avangard and Zarechny (Penza-19) -- in 2000, and the NCI program is engaged in discussions of possible assistance to that effort. See "Russia's Nuclear Arms Facilities Undergoing Conversion," Itar-Tass News Agency, March 25, 1999.

motivated by expected delays in the ability of another DOE facility to provide the radioactive waste that will be combined with the plutonium in the immobilization process. The DOE's Office of Fissile Material Control and Disposition subsequently approached Congress about withdrawing the FY 2000 funding request for the immobilization facility design work. Although the House and Senate bills initially approved \$21.765 million in late July for this project, the request to withdraw these funds was submitted in time to be reflected in the final conference agreement.

The House refused to provide long-lead procurement funds for equipment that would be installed at the Pit Disassembly and Conversion Facility, one of the other key planned facilities in the U.S. plutonium disposition effort. The \$10 million reduction for the PDCF was included in the final conference agreement.

The Senate, however, was much more supportive of the fissile material disposition program, and declared it equally as important as the Energy Department's nuclear weapons mission since "both are integral components of our national effort to reduce any threat posed to the United States and to deter the threat that remains." The Senate's bill fully funded the \$200 million request, and included an additional \$5 million to support joint U.S.-Russian development of an advanced reactor to "consume" excess weapons plutonium.

The conferees followed the Senate's lead, and also appropriated the additional \$5 million for joint development of the advanced reactor. However, the conference report subjected obligation of these funds to a condition specifying that \$3 million of this amount must be spent in Russia and that the funds can only be obligated if Russia produces a matching \$3 million. (See endnote ix.)

Meanwhile, the Defense Authorization Act recommended providing the full \$200 million for the DOE fissile material disposition activities. The conferees noted particular satisfaction with the development of gas-cooled reactors, and anticipated that further development of this technology might provide additional capacity to dispose of weapon plutonium.

The defense authorizers also directed the DOE's Material Disposition (MD) office to assume responsibility for various activities that are more consistent with its mission, but which are currently being conducted by the Department's Defense Programs office. These activities include storage of surplus U.S. special nuclear materials, the "Parallex" mixed oxide fuel project (to verify assembly of MOX fuel rods and to investigate disposal via MOX fuel use in Canadian reactors), activities of the Amarillo Plutonium Research Center, and surplus plutonium pit disassembly and conversion activities. Authority over these activities has been transferred to MD, and their funding requests will be included in the Disposition Office's FY 2001 budget.

Materials Protection, Control, and Accounting (MPC&A) program

The House and Senate settled on \$150 million for the MPC&A program, a \$5 million increase over the request, which was in line with the House Appropriations Committee's recommendation. In its report, the Senate committee had recommended a larger \$165 million appropriation for MPC&A activities, with the increase to expand the existing work at Russian

defense-related, civilian, and regulatory sites with nuclear materials, and to enhance MPC&A security upgrades at several Russian Navy sites.

HEU Purchase Agreement Transparency

Both the authorizers and appropriators agreed to provide full funding for this activity without commenting further on the program, except to restate its purpose.

Other programs

Neither the Defense Authorization Act nor the Energy and Water Development Appropriations Act made any explicit reference to the Export Control/Second Line of Defense or BN-350 programs, but both pieces of legislation provided sufficient funding to DOE's arms control budget to support the programs at their requested levels. (See endnote viii)

Funding results for Department of Energy programs

Program	Budget Request	House: Energy & Water Appropriation <i>Defense Authorization</i>	Senate: Energy & Water Appropriation <i>Defense Authorization</i>	Conference Report: Energy & Water Appropriation <i>Defense Authorization</i>	Appropriation, <i>Authorization vs.</i> Budget Request
MPC&A	\$145,000,000	\$145,000,000 <i>\$172,000,000</i>	\$165,000,000 <i>\$145,000,000</i>	\$150,000,000 <i>\$145,000,000</i>	+\$5,000,000 <i>No change</i>
Export Controls/ Second Line of Defense ^{viii}	2,515,000	Unspecified <i>Unspecified</i>	2,515,000 <i>2,515,000</i>	\$2,515,000 <i>\$2,515,000</i>	No change <i>No change</i>
Plutonium disposition	200,000,000 (<i>\$25 million for Russia</i>)	190,000,000 (<i>\$25 million for Russia</i>) <i>239,000,000</i> (<i>\$25 million for Russia</i>)	205,000,000 (<i>\$30 million for Russia</i>) <i>200,000,000</i> (<i>\$25 million for Russia</i>)	173,235,000 ^{ix} (<i>\$30 million for Russia</i>) <i>200,000,000</i> (<i>\$25 million for Russia</i>)	-26,765,000 (<i>+5 million for Russia</i>) <i>No change</i> (<i>Unchanged for Russia</i>)
Nuclear Cities Initiative	30,000,000	1,500,000 ^x <i>\$40 million to IPP and NCI combined</i>	30,000,000 <i>15,000,000</i>	7,500,000 <i>\$40 million to IPP and NCI combined^{xi}</i>	-22,500,000 <i>Combined \$20 million cut</i>
IPP	30,000,000	22,500,000 <i>\$40 million to IPP and NCI combined</i>	30,000,000 <i>25,000,000</i>	22,500,000 <i>\$40 million to IPP and NCI combined^{xi}</i>	-7,500,000 <i>Combined \$20 million cut</i>
HEU Agreement Transparency	15,750,000	15,750,000 <i>15,750,000</i>	15,750,000 <i>15,750,000</i>	15,750,000 <i>15,750,000</i>	No change <i>No change</i>
DOE Augment BN-350 Kazakhstan ^{viii}	16,000,000	Unspecified <i>Unspecified</i>	16,000,000 <i>16,000,000</i>	\$16,000,000 <i>\$16,000,000</i>	No change <i>No change</i>
Total DOE ETRI	\$264.3 million		\$289.3 million <i>\$244.3 million</i>	\$244.3 million <i>\$244.3 million</i>	-\$20 million <i>-\$20 million</i>

CONGRESSIONAL ACTION ON STATE DEPARTMENT ETRI PROGRAMS

The State Department funds two important programs that help facilitate alternative employment for Russian nuclear scientists -- the International Science and Technology Center (ISTC) and the Civilian Research and Development Foundation (CRDF). The State Department also provides export control and border security assistance to enable Russia to better detect illicit WMD-related transfers. Funding and guidance for these efforts, and other programs aimed at biological weapons nonproliferation and conventional armed forces restructuring in the former Soviet Union, are provided through the Foreign Operations Appropriations and State Department Authorization Acts.

Prolonged disputes between the Administration and Congress over fiscal year 2000 foreign operations spending simmered throughout the summer and into the fall of 1999. These differences were resolved at the very end of the congressional session, after fiscal year 2000 began, in a consolidated appropriations package (H.R. 3194; H. Rept. 106-749).

The funding proposed for State Department ETRI programs comes from two wide-ranging "budget items," or accounts, in the Foreign Operations budget. Of the \$250.5 million proposed in ETRI for State Department efforts, \$241 million is to come from the "Freedom Support Act -- Assistance to the NIS" account. This budget item funds the ISTC, CRDF, redirection of BW scientists, and most of the export control development work. This "NIS Assistance" account covers an array of activities in the former Soviet Union, including other cooperative security work, as well as humanitarian, medical, and economic reform assistance. An additional \$9.47 million in export control assistance to Russia and other New Independent States was designated to come from the \$15 million Export Control Assistance line item in the State Department's "Nonproliferation, Anti-terrorism, De-mining and Related Programs" (NADR) account.

General remarks on the Expanded Threat Reduction Initiative

The final foreign operations conference report takes note of the Administration's request to provide \$241 million from the NIS assistance account for ETRI programs, but it does not provide detailed guidance on how and what portion of the total \$839 million NIS assistance appropriation should be allocated to ETRI activities. The report specifically endorses one program -- CRDF -- and encourages the Administration to provide no less than the \$23.5 million requested for it. The conference report also instructs the Coordinator for Assistance to the NIS to submit quarterly reports -- due December 15, 1999, March 15, 2000, and July 15, 2000 -- on the allocation, obligation, and disbursement of FY 2000 and prior year appropriations for expanded nonproliferation work in the region.

Additional congressional attitudes toward the ETRI and nonproliferation work with Russia in general can be gleaned by reviewing the FY 2000 foreign operations bills and committee reports in the House and Senate.

The accompanying report to the House of Representatives' first foreign operations bill that passed in August (H.R. 2606; H. Rept. 106-254) expressed "merit in many of the activities proposed [under ETRI], but [the Appropriations Committee] is not convinced that the proposed

rapid expansion of several projects is feasible or justified." The report continued to press on the State Department Coordinator for Assistance to the NIS to stimulate the development of "proto-businesses" through partnerships between the U.S. private sector and Russian nuclear institutes (other than those designated as being involved in nuclear activities with Iran). The language also suggests that simply supporting individual Russian weapon scientists through R&D contracts is insufficient, and that a more concerted effort should be made to help Russian nuclear institutes move toward development of market-based civilian goods. The same report also praises the CRDF, expecting it to "play a major role in the Expanded Threat Reduction program." (See endnote xiii.)

The Senate's foreign operations report (S. Rept. 106-81) also voiced doubts about ETRI and the value of cooperative nonproliferation programs with Russia. Citing unspecified "recent technical audits" the Senate Appropriations Committee noted its concern about "the accomplishments and effectiveness of these programs." Vowing to monitor these programs next year, the Committee decided that it would be ill-advised to countenance the "quadrupling of funding for programs that may not have had a restraining effect on the proliferation of nuclear technology." In dissenting moves against the Committee's recommendations, Senators Biden (D-DE) and Schumer (D-NY) amended the bill on the Senate floor with "Sense of the Senate" resolutions stating that ETRI programs are vital to U.S. national security and that funding should be restored in conference to near the full requests. (See endnote xiv.)

The conference agreement vetoed by Clinton did not adopt the Schumer or Biden amendments, and made no other specific references to the Expanded Threat Reduction Initiative.

Funding for the Freedom Support Act -- Assistance to the NIS

The original FY 2000 Foreign Operations Appropriations Act that Congress passed in early October was vetoed by President Clinton because it failed to provide sufficient funding for implementation of the Wye River Middle East peace accord, and also because it decreased a number of foreign aid activities, including the NIS assistance budget.

Under the original bill, NIS assistance funding was slashed from the \$1.032 billion request to \$735 million. This appropriation would have been about \$35 million less than the FY 1998 level. Although the Congress did not specify cuts for particular nonproliferation programs included in the NIS Assistance budget item, the size of the cut would have made it impossible for the State Department to fund nonproliferation programs in Russia at their requested levels. Under the circumstances, it was conceivable that the \$297 million reduction would have required State to cut back the ISTC, CRDF, and related efforts to FY 1999 levels or less.

Following Administration protests and negotiations with Capitol Hill, the House passed a new Foreign Operations Appropriations bill (H.R. 3196) in early November 1999. This new bill fully funded the Wye accord, and included \$104 million in additional funding for assistance to the NIS, bringing the total closer to the Administration's request for that account, but still about \$193 million short. This new amount of \$839 million was also less than the total FY 1999 NIS assistance appropriation of \$847 million (\$801 million in the FY 1999 Foreign Operations Appropriations Act plus \$46 million in the FY 1999 omnibus emergency supplemental

appropriations package). However, a new provision was inserted into H.R. 3196 requiring that "not less than \$241 million [of the \$839 million provided for NIS assistance] shall be made available for expanded nonproliferation and security cooperation programs." (See endnote xvi.)

However, that provision was dropped in the final version of the Foreign Operations Appropriations Act (see H.R. 3422) that passed in the Consolidated Appropriations package (H.R. 3194). Although the final Act approved \$839 million for NIS assistance, it did not recommend a specific amount for ETRI activities. (See endnote xvii.) Thus, the State Department will face tough decisions in dividing up the funds to the diverse competing priorities within the NIS account.

As of this writing, the State Department indicated that it would provide \$180 million to ETRI in FY 2000, though no decision had been reached on the amounts to be allocated to specific programs. Presumably, since the full NADR component of ETRI (\$9.47 million for export control work, see below) was approved, about \$170.5 million of this total will come from the NIS Assistance account.

Funding for the Nonproliferation, Anti-Terrorism, Demining, and Related Programs Account

In the vetoed version of the Foreign Operations Appropriations Act, only \$10.17 million was approved instead of the full \$15 million request for export control assistance in the "Nonproliferation, Anti-Terrorism, Demining, and Related Programs" (NADR) account. The Administration designated \$9.47 million of the NADR export control assistance request to be used for projects in Russia and the NIS. The Consolidated Appropriations Act approved \$35 million in plus-ups for various activities in the NADR account, including a \$4.83 million increase for export control activities, meaning this component of ETRI should be fully funded for FY 2000.

NADR funding, in thousands of dollars

Program	House	Senate	<i>First Conference Agreement</i>	<i>Final Conference Agreement</i>
Nonproliferation and Disarmament Fund	\$15,000	\$15,000	\$15,000	\$15,000
Export control asst.	5,000	5,000	10,170	15,000
IAEA contribution	43,000	40,000	43,000	43,000
CTBT Preparatory Commission	20,000	20,000	20,000	20,000
Prepaid in FY 1999	-4,370	-----	-4,370	-4,370
KEDO	35,000	40,000	35,000	35,000
Anti-terrorism asst.	33,000	20,000	27,800	33,000
Demining	35,000	35,000	35,000	40,000
Reserve	-----	-----	-----	19,970
Total	\$181,630	\$175,000	\$181,600	\$216,600

State Department Authorization

In addition to the foreign operations spending agreement, the State Department authorizing legislation was also passed in the consolidated spending package. This legislation (see H.R. 3427 and H. Rept. 106-479) includes a number of policy and management changes that could impact U.S.-Russian nuclear security relations. Some of the relevant highlights of the conference agreement include the following:

- Endorsement of a proposal (a variant of which was put forward initially by Senator Lugar in early 1999) to provide business management education and training for Russians and Ukrainians. The authorization act approves \$10 million in FY 2000 to teach business administration, accounting, and marketing skills to employees of Russian or Ukrainian businesses and to former Russian and Ukrainian military officers operating or in the process of forming private enterprises. The training will be conducted on the ground in Russia and Ukraine, or via distance learning programs by U.S. representatives or eligible Russian or Ukrainian nationals that have been trained under the program. A clearinghouse would be established in each country to provide information about the training program and teachers, screen applications, and manage post-program follow-on activities.

While this initiative was authorized, no funds were appropriated. However, there is an interest in both the Congress and the Administration in implementing the program this year. It is hoped that the State Department will fund it out of un-earmarked FY 2000 foreign assistance funds, although probably not at the \$10 million level.

- Establishment of an Assistant Secretary of State for Verification and Compliance. Distressed that the United States no longer maintains a government entity specifically charged with the verification and monitoring enforcement of arms control agreements, the conference agreement establishes a Bureau for Verification and Compliance within the State Department. The Bureau will maintain overall oversight of policy and resources relating to verification of various arms control, nonproliferation, and disarmament treaties, as well as executive agreements and commitments, including those falling within the purview of regional bureaus.
- An assessment of intelligence community capabilities to monitor compliance with the START I and II Treaties. The report, to be prepared by the Director of Central Intelligence within 180 days of the Act's enactment, is to identify: all monitoring capabilities of the U.S. intelligence community for both treaties; the intelligence community assets and capabilities the Senate was informed would be necessary to accomplish those activities; and the status of those assets. The report is also to contain an assessment of all Russian activities which could impact the U.S. ability to monitor Russian compliance with START I.
- New requirements for disposition of weapons-grade plutonium. Within 120 days of signing an agreement with Russia for the disposition of excess plutonium, the Energy Secretary is asked to submit a report to Congress detailing plans for U.S. implementation of such an agreement, identifying the number of U.S. warhead pits of each type deemed excess, and

describing the impact of the disposition program on the Stockpile Stewardship and Management Program.

In addition, the conferees stipulated that the Secretary of State should be prepared to certify that the nuclear nonproliferation benefits from the establishment of a mixed-oxide fuel fabrication plant in Russia outweigh the proliferation risks; that a guarantee has been given by Russia that it will not supply fuel elements produced at that facility to another country; and that Russia will guarantee international monitoring and transparency for all equipment and materials at that plant.

- Making funds under the State Department's "Nonproliferation, Anti-Terrorism, Demining, and Related Programs" (NADR) account available for the science and technology centers in Russia and Ukraine beginning in FY 2001. Describing the science and technology centers "in essence, nonproliferation programs," the conference report argues it is more appropriate for the programs to be transferred to the NADR account.

On a related issue, the conference report also included a clarifying amendment reiterating that science and technology center funds could be used to support research activities with civilian NIS scientists and engineers, as long the participation of former Soviet weapon scientists "predominates." The provision allows science and technology center funding to support international exchanges that will broaden the exposure of weapon scientists in the former Soviet Union to commercial activities and the Western private sector.

Funding results for State Department programs

Account ^{xii}	Budget Request	House: Foreign Operations Appropriation ^{xiii}	Senate: Foreign Operations Appropriation ^{xiv}	Conference Report: Foreign Operations Appropriation ^{xv}	Appropriation vs. budget request
Total NIS Assistance Account (includes most ETRI items) -- VETOED BILL	\$1.032 billion (includes \$241 million for ETRI work)	\$725 million	\$780 million	\$735 million	-\$297 million
Total NADR Export Control Assistance Line Item (includes some ETRI export control support) -- VETOED BILL	\$15 million (includes \$9.47 million for Russia and NIS)	\$5 million	\$5 million	\$10,170,000	-\$4.83 million
Total State ETRI	\$250.5 million	Unspecified	Unspecified	Unspecified	Unspecified

	Budget Request	New House: Foreign Operations Appropriations Bill	New Senate: Foreign Operations Appropriations Bill	New Foreign Operations Appropriations Conference Agreement	Appropriation vs. budget request
Total NIS Assistance Account -- FINAL BILL	\$1.032 billion	\$839 million (required no less than \$241 million be spent on ETRI activities)^{xvi}	No new Senate bill	\$839 million (Encouraged no less than \$23.5 million for CRDF)^{xvii}	-\$193 million
Total NADR Export Control Assistance Line Item -- FINAL BILL	\$15 million	Unspecified	No new Senate bill	\$15 million	No change
Total State ETRI	\$250.5 million	Stipulated at least \$241 million of NIS Assistance budget to be spent on ETRI programs	-----	Did not stipulate an amount for ETRI (\$180 million will be allocated by State Dept. to ETRI programs)	-\$70.5 million

Table of relevant legislation

The following table identifies the legislation that provides FY 2000 funding or shapes the policy for various ETRI programs. *(The relevant sections of all FY 2000 authorization and appropriations bills affecting Russian nuclear security work are posted on RANSAC's web site, at www.princeton.edu/~ransac)*

Bill	Bill #	Report	Date of Passage	Public Law
House Defense Authorization	H.R. 1401	106-162	06/14/99	
Senate Defense Authorization	S. 1059	106-50	05/27/99	
Defense Authorization Conference Report	-----	106-301	House -- 09/15 Senate -- 09/22	PL 106-65
House Defense Appropriations	H.R. 2561	106-244	07/22/99	
Senate Defense Appropriations	S. 1122	106-53	07/28/99	
Defense Appropriations Conference Report	-----	106-371	House -- 10/13 Senate -- 10/14	PL 106-79
House Energy & Water Appropriations	H.R. 2605	106-253	07/27/99	
Senate Energy & Water Appropriations	S. 1186	106-58	07/28/99	
Energy & Water Appropriations Conference Report	-----	106-336	House -- 09/27 Senate -- 09/28	PL 106-60
House Foreign Operation Appropriations	H.R. 2606	106-254	08/03/99	
Senate Foreign Operations Appropriations	S. 1234	106-81	08/04/99	
Foreign Operations Appropriation Conference Report	-----	106-339	House -- 10/5 Senate -- 10/6	VETOED, 10/18/99
House	H.R. 3196		11/04/99	
Senate				
FINAL Foreign Operations Appropriations Conference Report		See H.R. 3422 -- Enacted by cross reference in Consolidated Appropriations Act -- H.R. 3194 (H. Rept. 106-479)	House -- 11/18 Senate -- 11/19	PL 106-113
State Department Authorization, House	H.R. 2415	106-122	07/21/99	
State Department Authorization, Senate	S. 886	106-43	08/03/99	
State Department Authorization Conference Report		See H.R. 3427 -- Enacted by cross reference in Consolidated Appropriations Act -- H.R. 3194 (H. Rept. 106-479)	House -- 11/18 Senate -- 11/19	PL 106-113

**Selected Reports Requested by Congress under FY 2000 Legislation
(Arranged by due date)**

Report Provider	Requesting Legislation	Summary of Requirements
Secretary of Defense	National Defense Authorization Act (Sec. 1302(b), P.L. 106-65)	The Act prohibits obligation or expenditure of FY 2000 CTR funds for activities not already authorized until 30 days after a report is provided explaining the amount and purpose of such funds.
Secretary of Defense	National Defense Authorization Act (Sec. 1306, P.L. 106-65)	The Act prohibits obligation or expenditure of more than 50% of FY 2000 CTR assistance until a report is submitted describing: whether the DOD is the best agency to carry out CTR programs and why; and a plan for shifting responsibility of projects to other agencies that the Secretary of Defense determines are not appropriate for DOD to conduct.
Secretary of Defense	National Defense Authorization Act (Sec. 1307, P.L. 106-65)	The Act prohibits obligation or expenditure of more than 10% of FY 2000 CTR funds until submission of an updated version of the multiyear plan originally required in the FY 1995 Defense Authorization Act on the use of funding and other resources provided by the U.S. to CTR.
Secretary of Energy	National Defense Authorization Act (Sec. 3136(a)(4), P.L. 106-65)	Under the Act, the Secretary of Energy is to prescribe enhanced review procedures for IPP projects to ensure that: the projects are not utilized by the Russian military sector; IPP activities do not contribute to Russian weapons of mass destruction programs; and U.S. national security interests are fully considered before commencement of IPP projects. The Secretary is to provide a report on and an implementation plan for the new review procedures.
Secretary of Energy	State Department Authorization Act (Sec. 1133, P.L. 106-113)	When a plutonium disposition agreement is signed with Russia, a report is to be provided detailing: U.S. plans for implementation of the agreement; the number of excess U.S. warhead pits of each type deemed excess; and the impact of the agreement on the Stockpile Stewardship program.
Director of Central Intelligence	State Department Authorization Act (Sec. 1114, P.L. 106-113)	A report identifying: all monitoring capabilities of the U.S. intelligence community under the START I & II Treaties; the intelligence community assets and capabilities that the Senate was informed would be necessary to accomplish effective monitoring of those treaties; the status of those assets; and an assessment of Russian activities that could impact U.S. ability to monitor Russian START I compliance.

Report Provider	Requesting Legislation	Summary of Requirements
State Department Coordinator for Assistance to the NIS	Foreign Operations Act (P.L. 106-113)	Quarterly reports on the allocation, obligation, and disbursement of FY 2000 and prior year appropriations for expanded nonproliferation work in the New Independent States.
Secretary of Defense	National Defense Authorization Act (Sec. 1308, P.L. 106-65)	A report describing: the strategy for encouraging countries receiving CTR assistance to contribute funds to the effort; the prioritization of CTR projects; limits that the U.S. does or will seek to impose on the level of CTR assistance for each project, either unilaterally or through negotiations with the recipient nation; and the amount of international assistance provided to CTR programs by other countries.
Secretary of Energy	National Defense Authorization Act (Sec. 3136(b)(4), P.L. 106-65)	A report describing the participation in or contribution to the Nuclear Cities Initiative of each U.S. government agency or department involved in the Initiative.
Secretary of Energy	National Defense Authorization Act (Sec. 3136(c), P.L. 106-65)	A three-part report to include: A strategic plan for the NCI and IPP establishing objectives for each program, and the means of measuring their achievement; a list of the most successful IPP projects, including the names of the institutes and scientists participating in each project, the number of jobs created by each project, and how they have met U.S. nonproliferation interests; and a list of WMD institutes and scientists that DOE intends to engage under IPP and NCI, including descriptions of WMD work currently performed by those institutes and scientists, and the specific activities IPP and NCI propose to undertake with those institutes and scientists.
Secretary of Defense	National Defense Authorization Act (Sec. 1312(b), P.L. 106-65)	In each future annual report accounting for CTR assistance, the following information on Russia's tactical nuclear weapons is to be included: estimates on the current warhead types, numbers, yields, locations, and deployment status; an assessment of the strategic relevance of the warheads; an assessment of the current and projected possibilities of warhead theft, sale, or use; and a summary of U.S. efforts to account for, secure, and reduce the number of Russian tactical warheads and associated fissile material.
President of the United States	National Defense Authorization Act (Sec. 1309, P.L. 106-65)	A report on ETRI, including descriptions of the Administration's plans to ensure interagency cooperation and minimize duplication of efforts under the Initiative.

EXPLANATORY NOTES TO CONGRESSIONAL ACTION ON ETRI PROGRAMS AND RELATED CHARTS:

ⁱThe total Administration request for "*warhead* transport and storage" was \$55.2 million. Congress, however, authorized \$114.2 million for both "*weapons* transportation security" in Russia (\$15.2 million) and "*weapons* storage security" in Russia (\$99 million). Appropriators provided a total of \$99.2 million for both activities – \$15.2 million for weapons transportation security and \$84.0 million for weapons storage security.

ⁱⁱ See endnote above.

ⁱⁱⁱ Defense Authorization Act conference report: "In light of concerns over nuclear transparency agreements, the conferees also agree to condition future funding for the second wing of a fissile material storage facility in Russia on several certifications and the negotiation of a signed transparency agreement with Russia that ensures that material stored at the facility has been removed from dismantled nuclear weapons." See the following bill language from the conference agreement:

SEC. 1304. LIMITATIONS ON USE OF FUNDS FOR FISSILE MATERIAL STORAGE FACILITY.

(a) **LIMITATIONS ON USE OF FISCAL YEAR 2000 FUNDS-** No fiscal year 2000 Cooperative Threat Reduction funds may be used--

(1) for construction of a second wing for the storage facility for Russian fissile material referred to in section 1302(a)(6); or

(2) for design or planning with respect to such facility until 15 days after the date that the Secretary of Defense submits to Congress notification that Russia and the United States have signed a verifiable written transparency agreement that ensures that material stored at the facility is of weapons origin.

(b) **LIMITATION ON CONSTRUCTION-** No funds authorized to be appropriated for Cooperative Threat Reduction programs may be used for construction of the storage facility referred to in subsection (a) until the Secretary of Defense submits to Congress the following:

(1) A certification that additional capacity is necessary at such facility for storage of Russian weapons-origin fissile material.

(2) A detailed cost estimate for a second wing for the facility.

(3) A certification that Russia and the United States have signed a verifiable written transparency agreement that ensures that material stored at the facility is of weapons origin.

^{iv} The Administration requested \$130.4 million. The Defense Authorization Act authorizes \$20 million for enhancing security at chemical weapon storage sites. The bill language of the Act states that "No fiscal year 2000 Cooperative Threat Reduction funds, and no funds appropriated for Cooperative Threat Reduction programs after the date of the enactment of this Act, may be obligated or expended for planning, design, or construction of a chemical weapons destruction facility in Russia."

In the Defense Authorization Act report language, the conferees "believe & that the more immediate goals of U.S. nonproliferation policy will be better served in the near term by redirecting CTR resources away from the costly long-term Shchuch'ye project and toward helping to ensure that Russian chemical weapons are effectively safeguarded against the risk of theft or diversion. For this reason, the conferees have provided funds to initiate enhanced security measures at Russia's chemical weapons storage sites."

^v While the Senate Defense Appropriations bill approved the total request (\$475,500,000), it required that "\$25,000,000 [of that total] shall be available only to support the dismantling and disposal of nuclear submarines and submarine reactor components in the Russian Far East" without specific offsets in other activities. The final Conference Report budgets \$25,000,000 of the total \$460,500,000 CTR appropriation for that purpose.

^{vi} Funding for the Arctic Military Environmental Cooperation program is provided under the Office of the Secretary of Defense (OSD) line item of the defense budget. See DOD detailed budget information: Defense-Wide Operations and Maintenance (O&M) budget, Budget Activity 4: Admin & Service-wide activities. The authorized and appropriated amounts for AMEC are estimations, since Congress only approves the budget for the OSD line, plus or minus earmarked increases or decreases for programs funded from that budget line. No specific comments or

earmarks for AMEC were provided in any of the defense authorization and appropriations legislation.

^{vii} Funding for the DOD/FBI and DOD/Customs Counterproliferation work is provided in the Defense Threat Reduction Agency (DTRA) line item of the Defense-Wide Operations and Maintenance (O&M) budget for the Department of Defense, Budget Activity 4: Admin & Service-wide activities. The authorized and appropriated amounts for these programs are estimations, since Congress only approves the broad DTRA O&M line, plus or minus earmarked increases or decreases for program activities funded from that budget line. No specific earmarks for these two counterproliferation activities were included in any of the defense appropriations legislation.

The joint explanatory statement accompanying the FY 2000 Defense Authorization Act, however, expresses Congress' support for the DOD/Customs Service program:

"TITLE XV ARMS CONTROL AND COUNTERPROLIFERATION MATTERS. ITEMS OF SPECIAL INTEREST. International border security. Among the efforts of the Department of Defense (DOD) to counter the threat of terrorist activities involving Weapons of Mass Destruction (WMD) or WMD materials, as well as the threat of proliferation of such weapons and materials, the conferees recognize the contribution being made by the International Border Security Training Program authorized in Sec. 1424 of the National Defense Authorization Act for Fiscal Year 1997. At relatively low cost, DOD has worked with the Customs Service to train border security officials from throughout Central Europe and the Newly Independent States (NIS) of the former Soviet Union to enhance their capabilities to prevent the flow of WMD or associated materials across their borders. The value of this program has been demonstrated by seizures of sensitive materials in Eastern Europe, including nuclear reactor components destined for Iran and a small quantity of Uranium-235. The border security officials responsible for both of these seizures attribute their success to the training they received in this program. The conferees commend those responsible for the success of this program."

^{viii} While Second Line of Defense and Nuclear Export Control assistance activities were listed together in a single line item on the Administration's ETRI budget summary, guidance in an Administration document states that, "An estimated \$2.5 million for [DOE] Nuclear Export Control assistance is requested for FY 2000 although no separate funding is requested for SLD. Funds will be allocated for SLD in FY 2000 from within the MPC&A budget for continued development of the SLD activities to provide equipment for one additional site and support training." The same document notes "DOE provided \$3 million for SLD initiatives in FY 98 and equipped 2 sites in Moscow and the Caspian Sea. A total of \$3.0 million has been allocated from FY 99 funds for this effort." As this paper went to press, an agreement had been made for the State Department's Nonproliferation and Disarmament Fund (NDF) to provide \$3.0 million in FY 2000 funding for SLD activities.

Please note that specific funding levels were not earmarked in any legislation for either the Export Control/SLD or the BN-350 conversion programs. However, both of these programs, along with a number of others, are funded under the "arms control" line of the DOE budget. By taking the total amount approved for the arms control line item in each bill, and then adding or subtracting the earmarked funding increases or decreases for other programs in the arms control budget (e.g. MPC&A, NCI, IPP), it was possible to confirm whether sufficient funding was provided for the BN-350 and Export Control/SLD work.

In two cases, it was not possible to deduce whether the arms control funding would be sufficient to support the BN-350 and Export Control/SLD programs: The House Defense Authorization bill recommended a \$90 million cut to the total arms control budget, and did not specify how the decrease should be applied to individual programs. The House Energy and Water Development Appropriations bill recommended a \$39.1 million cut to the DOE arms control budget, though the earmarked decreases for DOE arms control programs totaled to only \$36.0 million (a \$7.5 million cut to IPP and a \$28.5 million decrease for NCI).

^{ix} Energy and Water Development Appropriations conference report: "The conference agreement does not include the budget request of \$21,765,000 for Project 00 D 142, Immobilization and Associated Processing Facility, which has been delayed. The conference agreement provides no long-lead procurement funds for Project 99 D 141, Pit Disassembly and Conversion Facility. The conferees have included \$5,000,000 as proposed by the Senate to support the joint U.S.-Russian development program of advanced reactor technology to dispose of Russian excess weapons-derived plutonium. Of this funding, \$2,000,000 is available for work to be performed in the United States by the

Department of Energy and other U.S. contractors, and \$3,000,000 is to be expended for work in Russia. The \$3,000,000 shall be made available for work in Russia on the gas reactor technology on the condition and only to the extent that the Russian Federation matches these contributions with either comparable funding or contributions-in-kind."

^x *Energy and Water Development Appropriations, House Report*

Initiatives for Proliferation Program and Nuclear Cities Initiative- The Committee recommendation provides \$22,500,000 for the Initiatives for Proliferation Program, the same as fiscal year 1999. A recent General Accounting Office report was highly critical of the fact that as much as 63 percent of these funds have been spent in the United States, mostly by the Department's national laboratories, rather than going to the scientific institutes of the Newly Independent States. The Committee directs that no more than 20 percent of the funding may be spent in the United States.

The Committee has provided \$1,500,000 for the Nuclear Cities Initiative, significantly less than the budget request of \$30,000,000. The Committee has several concerns with this program. First, and foremost, it is not clear that the Department of Energy is the best agency to implement this program since the most important training needed in these cities is marketing and business expertise. The Department should work with other Federal agencies that are implementing similar programs in Russia to ensure that this type of training is provided immediately. The Department relies solely on its national laboratories to implement this program, and the Committee does not believe that Department of Energy laboratories are useful guides for marketing expertise and successful commercial ventures. Additionally, the Committee is aware that access to these cities is very difficult and requires a 45 day advance notification period. With funding of \$7,500,000 provided in fiscal year 1999 and an additional \$1,500,000 in fiscal year 2000, the Committee is providing limited funds for this new initiative and will wait to see some tangible results before significantly increasing funding.

^{xi} Defense Authorization conference report: "The conferees recommend \$276.0 million for arms control, a reduction of \$20 million. The conferees direct that this reduction be taken in the Initiatives for Proliferation Prevention Program and the Nuclear Cities Initiative." See the following text of the Defense Authorization Act bill and report language for details of congressional guidance on the implementation of NCI and IPP.

Defense Authorization Conference Bill Language

SEC. 3136. NONPROLIFERATION INITIATIVES AND ACTIVITIES.

INITIATIVE FOR PROLIFERATION PREVENTION PROGRAM-

- (1) Not more than 35 percent of the funds available in any fiscal year after fiscal year 1999 for the Initiatives for Proliferation Prevention program (IPP) may be obligated or expended by the Department of Energy national laboratories to carry out or provide oversight of any activities under that program.
- (2)(A) None of the funds available in any fiscal year after fiscal year 1999 for the Initiatives for Proliferation Prevention program may be used to increase or otherwise supplement the pay or benefits of a scientist or engineer if the scientist or engineer
 - (i) is currently engaged in activities directly related to the design, development, production, or testing of chemical or biological weapons or a missile system to deliver such weapons; or
 - (ii) was not formerly engaged in activities directly related to the design, development, production, or testing of weapons of mass destruction or a missile system to deliver such weapons.
- (B) None of the funds available in any fiscal year after fiscal year 1999 for the Initiatives for Proliferation Prevention program may be made available to an institute if the institute
 - (i) is currently involved in activities described in subparagraph (A)(i); or
 - (ii) was not formerly involved in activities described in subparagraph (A)(ii).
- (3)(A) No funds available for the Initiatives for Proliferation Prevention program may be provided to an institute or scientist under the program if the Secretary of Energy determines that the institute or scientist has made a scientific or business contact in any way associated with or related to weapons of mass destruction with a representative of a country of proliferation concern.
- (B) For purposes of this paragraph, the term 'country of proliferation concern' means any country so designated

by the Director of Central Intelligence for purposes of the Initiatives for Proliferation Prevention program.

(4)(A) The Secretary of Energy shall prescribe procedures for the review of projects under the Initiatives for Proliferation Prevention program. The purpose of the review shall be to ensure the following:

- (i) That the military applications of such projects, and any information relating to such applications, is not inadvertently transferred or utilized for military purposes.
- (ii) That activities under the projects are not redirected toward work relating to weapons of mass destruction.
- (iii) That the national security interests of the United States are otherwise fully considered before the commencement of the projects.

(B) Not later than 30 days after the date on which the Secretary prescribes the procedures required by subparagraph (A), the Secretary shall submit to Congress a report on the procedures. The report shall set forth a schedule for the implementation of the procedures.

(5)(A) The Secretary shall evaluate the projects carried out under the Initiatives for Proliferation Prevention program for commercial purposes to determine whether or not such projects are likely to achieve their intended commercial objectives.

(B) If the Secretary determines as a result of the evaluation that a project is not likely to achieve its intended commercial objective, the Secretary shall terminate the project.

(6) Funds appropriated for the Initiatives for Proliferation Prevention program may not be used to pay any tax or customs duty levied by the government of the Russian Federation. In the event payment of such a tax or customs duty with such funds is unavoidable, the Secretary of Energy shall

(A) after such payment, submit a report to the congressional defense committees explaining the particular circumstances making such payment under the Initiatives for Proliferation Prevention program with such funds unavoidable; and

(B) ensure that sufficient additional funds are provided to the Initiatives for Proliferation Prevention Program to offset the amount of such payment.

(b) NUCLEAR CITIES INITIATIVE-

(1) No amounts authorized to be appropriated by this title for the Nuclear Cities Initiative may be obligated or expended for purposes of the initiative until the Secretary of Energy certifies to Congress that Russia has agreed to close some of its facilities engaged in work on weapons of mass destruction.

(2) Notwithstanding a certification under paragraph (1), amounts authorized to be appropriated by this title for the Nuclear Cities Initiative may not be obligated or expended for purposes of providing assistance under the initiative to more than three nuclear cities, and more than two serial production facilities, in Russia in fiscal year 2000.

(3)(A) The Secretary shall conduct a study of the potential economic effects of each commercial program proposed under the Nuclear Cities Initiative before providing assistance for the conduct of the program. The study shall include an assessment regarding whether or not the mechanisms for job creation under each program are likely to lead to the creation of the jobs intended to be created by that program.

(B) If the Secretary determines as a result of the study that the intended commercial benefits of a program are not likely to be achieved, the Secretary may not provide assistance for the conduct of that program.

(4) Not later than January 1, 2000, the Secretary shall submit to Congress a report describing the participation in or contribution to the Nuclear Cities Initiative of each department and agency of the United States Government that participates in or contributes to the initiative. The report shall describe separately any interagency participation in or contribution to the initiative.

(c) REPORT-

(1) Not later than January 1, 2000, the Secretary of Energy shall submit to the Committee on Armed Services of the Senate and the Committee on Armed Services of the House of Representatives a report on the Initiatives for Proliferation Prevention program and the Nuclear Cities Initiative.

(2) The report shall include the following:

(A) A strategic plan for the Initiatives for Proliferation Prevention program and for the Nuclear Cities Initiative, which shall establish objectives for the program or initiative, as the case may be, and means for measuring the achievement of such objectives.

(B) A list of the most successful projects under the Initiatives for Proliferation Prevention program, including for each such project the name of the institute and scientists who are participating or have participated in the project, the number of jobs created through the project, and the manner in which the project has met the nonproliferation objectives of the United States.

(C) A list of the institutes and scientists associated with weapons of mass destruction programs or other defense-

related programs in the states of the former Soviet Union that the Department seeks to engage in commercial work under the Initiatives for Proliferation Prevention program or the Nuclear Cities Initiative, including

- (i) a description of the work performed by such institutes and scientists under such weapons of mass destruction programs or other defense-related programs; and
- (ii) a description of any work proposed to be performed by such institutes and scientists under the Initiatives for Proliferation Prevention program or the Nuclear Cities Initiative.

(d) **NUCLEAR CITIES INITIATIVE DEFINED**- For purposes of this section, the term 'Nuclear Cities Initiative' means the initiative arising pursuant to the March 1998 discussions between the Vice President of the United States and the Prime Minister of the Russian Federation and between the Secretary of Energy of the United States and the Minister of Atomic Energy of the Russian Federation.

Report Language

Nonproliferation initiatives and activities (sec. 3136)

The Senate bill contained a provision (sec. 3136) that would: (1) limit the percentage of appropriated funds that may be spent by the Department of Energy (DOE) laboratories to 40 percent; (2) express a sense of Congress that the President enter into negotiations with the Russian government for the purposes of entering into an agreement between the U.S. and Russia to provide for a permanent exemption from taxation for the Initiatives for Proliferation Prevention Program (IPP); and (3) enhance the management, accountability, and oversight of the IPP and Nuclear Cities Initiative.

The House amendment contained similar provisions (sec. 3131-3132) that would limit the percentage of funds appropriated for the IPP program that are spent at the DOE laboratories to 25 percent and would prohibit funds appropriated for the IPP program from being used to pay Russian government taxes and customs duties.

Both the Senate and the House recede.

The conferees agree to combine all three provisions. The provision would prohibit the payment of Russian taxes but in the event that the payment of Russian taxes is unavoidable, the Secretary of Energy shall: (1) after such payment, submit a report to the congressional defense committees explaining the particular circumstances that would make such payment under the IPP program unavoidable; and (2) ensure that sufficient additional funds are provided to the IPP program to offset the amount of such payment.

The conferees intend that in implementing the requirements of subsection (6), subparagraph (B) of this provision, if funds are reprogrammed to the IPP program to offset the funds used to pay taxes, the Secretary shall use established reprogramming procedures. The conferees note that if the Department of Energy learns that recipients of IPP funds have paid income or other taxes, the conferees expect that the Secretary of Energy will notify the congressional defense committees in accordance with subsection (6), subparagraph (A).

The conferees, troubled by the disproportionately large share of the IPP funds that have remained in the DOE national laboratories, have agreed to a funding restriction that limits the amount of IPP funds spent in the DOE national laboratories to 35 percent of the overall program funding. The DOE had previously committed to achieving a 40 percent limitation. The conferees recognize that meeting the 35 percent in fiscal year 2000 will be a challenge. While clearly the goal of the IPP program is to ensure that the maximum amount of IPP funds reach the program participants, DOE must also ensure that there is adequate program oversight.

^{xii} For specific programs under the NIS assistance account (virtually all of the State Department ETRI programs), Congress generally does not identify funding levels, but approves a funding level for the total NIS assistance budget item, and may or may not offer guidance to the State Department on how funds appropriated to that account are to be allocated among different activities. No particular programmatic guidance was included in the first or final FY 2000 Foreign Operations Appropriations Act. Accompanying explanatory statements to both the original Senate and House bills made congressional doubts about ETRI explicit, and the original conference report rejected amendments to the Senate bill that would have reaffirmed congressional support of ETRI and restored funding for State ETRI programs to the requested levels. See endnotes xiii -- xv.

^{xiii} **House Statement on ETRI.** H. Rept 106-254 (accompanying HR 2606): "EXPANDED THREAT REDUCTION: The request included \$241,000,000 for an Expanded Threat Reduction program. The Committee finds merit in many of the activities proposed, but is not convinced that the proposed rapid expansion of several projects is feasible or justified. The Committee will continue to review the justification for the Expanded Threat

Reduction program in light of rapidly changing events in Russia, but does not recommend a specific amount at this time.

In order to clarify the intended result of activities authorized under Title V of the FREEDOM Support Act [Nonproliferation and Disarmament Programs and Activities], the Committee directs the Coordinator to include in each congressional notification a specific citation of the section of title V that authorizes the activity being notified.

The Committee requests the Coordinator to seriously consider undertaking a renewed effort to collaborate with partnerships between the United States private sector and Russian nuclear institutes (other than those designated as involved with nuclear activities in Iran) in development of proto-businesses. Other programs funded under this heading engage individual scientists possessing special competence in weapons of mass destruction in alternative civil research and development, but the Committee suggests that another attempt be made to help nuclear institutes move away from weapons development toward market-based civilian products. Any such project would be funded primarily by the American private sector and would consider pilot proposals incorporating completed, privately-financed feasibility studies.

The U.S. Civilian Research and Development Foundation (CRDF) has effectively implemented United States/Independent States of the FSU collaborations in science and technology. Hundreds of American and thousands of Russian, Ukrainian, Armenian, and other IS/FSU researchers have been supported over the past three and a half years in work on projects selected via merit review. It expects that the CRDF will play a major role in the Expanded Threat Reduction program. The Committee commends the efforts of the President's Coordinator to obtain regular and substantial funding for the work of the CRDF from several agencies, including some funded in other appropriations Acts. The Committee strongly urges the Administration to continue and broaden these efforts, so that the objectives of the CRDF can be fully achieved. It recommends that the Coordinator continue to play a key role in allocating funds for the CRDF and other elements of the Expanded Threat Reduction program. The Committee supports the recently created joint United States-Russia program to develop an advanced reactor to consume large quantities of excess weapons plutonium. This program promises to help fill a substantial gap in the Russian capacity to destroy their weapons plutonium in a timely manner. To this end, the Committee recognizes the importance of securing the financial support of Europe and Japan. It encourages the Department of State to use every opportunity to elicit the support of these nations for the cooperative implementation of this critical security program."

^{xiv} **Senate Statement on ETRI.** Senate Report 106-81 (accompanying S. 1234):

"EXPANDED THREAT REDUCTION INITIATIVE:

The Committee has been and continues to be a public advocate in support of nuclear safety initiatives around the world. In the 2000 fiscal year Budget, the Administration proposed a new five year, \$4,500,000,000 program to reduce international security and proliferation threats. This proposal, the Expanded Threat Reduction Initiative, would expand security assistance to Russian and the Newly Independent States. However, recent technical audits have caused concern regarding the accomplishments and effectiveness of these programs. The Committee believes it is ill advised to support quadrupling funding for programs that may not have had a restraining effect on the proliferation of nuclear technology. The Committee will closely monitor these initiatives in the coming year for future consideration."

However, Senator Biden and Senator Schumer amended the bill on the Senate floor. Both amendments passed, and are briefly summarized as follows:

Biden Amendment: expressed sense of the Senate that the programs contained in the Expanded threat Reduction Initiative are vital to the national security of the United States and that funding for those programs should be restored in conference with the House to the levels requested in the President's budget.

Schumer Amendment: expressed sense of the Senate that the proposed programs under the Expanded Threat Reduction Initiative (ETRI) are critical and essential to preserving U.S. national security, and that Department of State programs under the ETRI be funded at or near the full request of \$250 million in the Foreign Operations Appropriations Bill for Fiscal Year 2000 prior to final passage."

^{xv} **Conference Statement on ETRI.** The final conference report rejected ETRI, and the floor amendments by Biden and Schumer. See Foreign Operations Conference Report 106-339: "EXPANDED THREAT REDUCTION: The conference agreement does not include two sections from the Senate amendment regarding the Expanded Threat Reduction Initiative. The House bill did not contain similar provisions."

^{xvi} H.R. 3196: ASSISTANCE FOR THE INDEPENDENT STATES OF THE FORMER SOVIET UNION
 (a) For necessary expenses to carry out the provisions of chapter 11 of part I of the Foreign Assistance Act of 1961 and the FREEDOM Support Act, for assistance for the Independent States of the former Soviet Union and for related programs, \$735,000,000, to remain available until September 30, 2001 &..

...

(k) Of the funds appropriated under this heading and in prior acts making appropriations for foreign operations, export financing, and related programs, not less than \$241,000,000 shall be made available for expanded nonproliferation and security cooperation programs under section 503 and 511 of the FREEDOM Support Act and section 1424 of Public Law 104-201.

TITLE VI-INTERNATIONAL AFFAIRS SUPPLEMENTAL APPROPRIATIONS BILATERAL ECONOMIC ASSISTANCE

ASSISTANCE FOR THE INDEPENDENT STATES OF THE FORMER SOVIET UNION

For an additional amount for Assistance for the Independent States of the Former Soviet Union', \$104,000,000, to remain available until September 30, 2001.

^{xvii} Consolidated Appropriations Act Conference Report (Rept. 106-749):

Assistance for the Independent States of the Former Soviet Union

The conference agreement appropriates \$839,000,000 instead of \$725,000,000 as proposed by the House and \$780,000,000 as proposed by the Senate. The word 'New' is deleted from the heading, as proposed by the House. The managers have included a ceiling on management costs for nuclear safety activities as proposed by the Senate and a limitation of 25 percent on the percentage of funds (other than for nonproliferation and disarmament programs) that may be allocated for any single country as proposed by the House.

Expanded Nonproliferation and Security Cooperation

The managers note that \$241,000,000 from this account was requested by the President for threat reduction activities in the former Soviet Union. The managers encourage the Administration to provide the Foundation established by section 511 of the FREEDOM Support Act not less than the \$23,500,000 requested for this purpose.

The managers request that the Coordinator for Assistance to the Independent States of the Former Soviet Union provide written reports on the allocation, obligation, and disbursement of appropriations during fiscal year 2000 for expanded nonproliferation and security cooperation from this and prior year acts not later than December 15, 1999, March 15, 2000, and July 15, 2000. The reports should, at a minimum, compare the allocation and obligation of funds by project, activity, and country with comparable data contained in the April 1999 justification documents subsequently provided to the Committees, and explain in detail any circumstances that resulted in reductions or other changes from the original justification.

The managers are concerned that none of the assistance provided to Russia for security cooperation be used for the benefit of military units credibly reported to be engaged in combat activities against civilian populations in the Northern Caucasus region of the Russian Federation. The Secretary of State is requested to inform the Committees in writing of steps taken to prevent United States assistance benefiting such units of the armed forces of the Russian Federation.

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All errors or omissions in this report are the responsibility of the author.

About the Russian American Nuclear Security Advisory Council

The Russian American Nuclear Security Advisory Council (RANSAC) was founded in 1997 with the purpose of developing new U.S.-Russian cooperative nuclear security initiatives, and ensuring the timely and effective implementation of existing programs. The Council consists of members drawn from both Russian and American institutions who possess significant experience in the policy and technical fields, and who have first-hand knowledge of the substance and implementation of cooperative nuclear security programs.

RANSAC focuses on five key thematic areas:

- Stabilizing, transforming, and downsizing the Russian nuclear weapon complex;
- Securing Russian nuclear material, warheads, and technologies;
- Limiting production of fissile material;
- Disposing of excess U.S. and Russian fissile material; and
- Establishing transparency in nuclear security programs and the nuclear weapons reduction process.

Toward these ends, RANSAC works with government officials in both countries, produces and disseminates reports, and interacts with academic institutes, non-governmental organizations, and the media around the world.

<i>RANSAC Members From Russia:</i>	<i>RANSAC Members From the United States:</i>	
Evgeny Avrorin Scientific Director, Russian Federal Nuclear Center Institute of Technical Physics (Chelyabinsk-70)	Matthew Bunn Assistant Director, Science, Technology and Public Policy Program, Harvard University	
Anatoly Diakov Director, Center for Arms Control, Energy and Environmental Studies Moscow Institute of Physics and Technology	Kenneth Luongo (RANSAC Executive Director) Visiting Research Collaborator, Princeton University	
Nikolai Ponomarev-Stepnoi Deputy Director, Russian Research Center, Kurchatov Institute	Hazel R. O'Leary President, O'Leary and Associates, Inc.	
Vladimir Sukhoruchkin Director, Kurchatov Analytic Center for Nonproliferation and Control, and RANSAC Moscow Office Director	Frank von Hippel Professor of Public and International Affairs, Princeton University	
Evgeny Velikhov Academician, Russian Academy of Sciences Member, Defense Council of the Russian Federation	<i>Washington, DC Staff</i>	
	William E. Hohn, III Washington Office Director	Christopher Fieck Research Associate

Offices:		
Main Office: H-102 Engineering Quadrangle Princeton University Princeton, NJ 08544 Phone: (609) 258-5190 Fax: (609) 258-3661 E-mail: kluongo@princeton.edu ransac@worldnet.att.net	Washington Office: 11 Dupont Circle, NW 9 th Floor Washington, DC 20036 Phone: (202) 332-1412 Fax: (202) 332-1413 E-mail: ransac@erols.com	Moscow Office: 1 Kurchatov Square Moscow, Russia 123182 Phone: 011-7-095-196-49-63 Fax: 011-7-095-882-5802 Russia Fax: 196-49-63 E-mail: ransac@electronics.kiae.ru