

REPORT TO THE SENATE COMMITTEE ON FOREIGN RELATIONS
ON
U.S. EFFORTS TO FACILITATE THE SAFE AND SECURE DISMANTLEMENT
OF FORMER SOVIET NUCLEAR WEAPONS
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This report outlines the efforts to date of the U.S. government to facilitate the safe and secure dismantlement of nuclear weapons in, and to prevent the proliferation of nuclear capabilities from, the former Soviet Union. It focuses particularly on the work of the U.S. Delegation on Safe and Secure Dismantlement of Nuclear Weapons (SSD).

Early Contacts

The origins of the SSD effort date back to the abortive Soviet coup of August 1991. That event created new concerns about the security and control of nuclear forces throughout the disintegrating Soviet Union. It also generated increased concern about the potential for proliferation of nuclear and chemical weapons and weapons technology among the Soviet republics and to third countries.

President Bush moved to address these concerns as part of his September 27, 1991, initiative announcing a series of unilateral steps to reduce the U.S. nuclear weapons force posture. In particular, the President proposed to begin discussions with the Soviet government to explore cooperation on the safety and security of nuclear weapons and on their safe and environmentally responsible storage, transportation, and destruction.

After President Gorbachev responded in October to the Bush initiative with a series of reductions of his own, the U.S. invited a delegation of senior diplomatic and military officials from the Soviet Union and each of the four republics with Soviet nuclear arms deployed on their territory to visit Washington to discuss the details of implementing the Bush and Gorbachev commitments. At these meetings, held in November, U.S. experts presented briefings on U.S. organizations, procedures, and systems for ensuring the safety and security of nuclear weapons, on how weapons could be quickly disabled, and on the U.S. approach to dismantling. The initial response to the U.S. offer of assistance to the Soviet dismantlement effort was not enthusiastic.

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In December, following extensive talks between Secretary of State Baker and key political leaders in the Soviet republics, the U.S. began to see a more constructive response. That same month, Congress passed H.R. 3807, the Soviet Nuclear Threat Reduction Act of 1991, also known as the Nunn-Lugar Act. This act authorized U.S. assistance after Presidential certification to "the Soviet Union, its republics, and any successor entities to (1) destroy nuclear weapons, chemical weapons, and other weapons, (2) transport, store, disable, and safeguard weapons in connection with their destruction, and (3) establish verifiable safeguards against the proliferation of such weapons." The Dire Emergency Supplemental Appropriations Act of 1992, passed at the same time, allowed the transfer between existing Department of Defense accounts of up to \$400 million of DOD FY92 appropriations to fund such efforts and designated DOD as the Executive Agent for the program. This legislation demonstrated U.S. willingness to commit significant resources to assist the dismantling task.

With the demise of the Soviet Union at the end of 1991, the U.S. faced the task of dealing with four independent states with nuclear weapons on their territory -- Russia, Ukraine, Belarus, and Kazakhstan. The latter three have indicated an intention to accede to the Nuclear Nonproliferation Treaty as non-nuclear weapon states. Accordingly, U.S. discussions with these states have focused on determining how we could assist them in removing all nuclear weapons from their territories quickly and safely and in dismantling the remaining infrastructure. Discussions with Russia, where nuclear weapons will be dismantled, have been necessarily broader in scope. In the remainder of this report, our discussions with each state are addressed in turn.

Russia

U.S. SSD experts visited Moscow in January, 1992, to begin detailed discussions of possible areas for U.S. assistance. (Under Secretary of State Bartholomew, who led this team, went on to Kiev, Minsk, and Alma-Ata to discuss nuclear weapons issues in general, but SSD experts did not visit the other three countries until later in the year.) In these meetings, Russian officials reported that the most significant impediment to meeting their dismantlement schedule was their lack of suitable long-term storage facilities and containers for the plutonium and uranium from dismantled weapons. They also identified a need for additional transportation assets, as well as specialized containers for transporting nuclear weapons, components, and materials.

In response to this information, Secretary Baker presented to Russian Foreign Minister Kozyrev in February seven papers, each describing an area where U.S. assistance could enhance the

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safety, security, and speed of nuclear weapons dismantling. These areas were:

- transportation and storage containers for fissile material removed from dismantled nuclear weapons;
- "supercontainers" and armored blankets for the protection of nuclear weapons during transport;
- safe, secure railcars for the transport of nuclear weapons and fissile material;
- storage facilities for fissile material from dismantled weapons;
- nuclear weapon accident response equipment and training;
- the development of a state system of accounting and control for nuclear material; and
- the ultimate disposition of highly enriched uranium and plutonium from dismantled weapons.

The seven papers reflected the U.S. view of the state of play in the U.S.-Russian discussions and set forth an agenda for the next round of talks. In a number of areas, the U.S. proposed meetings of technical experts to try to reach agreement on specific types of assistance that looked promising.

Shortly after the Baker-Kozyrev meeting, I agreed to come out of retirement to lead the U.S. SSD Delegation. I thus led the next set of meetings in Moscow, in March, when we discussed each of the topics that the U.S. had proposed. The meetings resulted in a series of commitments by the Russian side to provide us the additional information we needed to determine their precise requirements in each area and to make final decisions on what assistance the U.S. would provide.

On April 8, the Administration certified Russia, Ukraine, and Belarus as having met the conditions in the Nunn-Lugar legislation for receiving U.S. assistance, namely, that they were committed to:

- (1) making a substantial investment of its resources for dismantling or destroying nuclear and other weapons;
- (2) forgoing any military modernization program that exceeds legitimate defense requirements and forgoing the replacement of destroyed weapons of mass destruction;
- (3) forgoing any use of fissionable and other components of destroyed nuclear weapons in new nuclear weapons;

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- (4) facilitating United States verification of weapons destruction carried out under programs of cooperation with the U.S.;
- (5) complying with all relevant arms control agreements; and
- (6) observing internationally recognized human rights, including the protection of minorities.

That same month, a team of Russian SSD experts traveled to Albuquerque, New Mexico, for demonstrations of U.S. nuclear accident response equipment that was being considered to meet Russian needs. This visit was returned in June, when U.S. experts traveled to the Russian-proposed storage facility site in Tomsk and to a nuclear fuel fabrication plant outside Moscow.

The next full meeting of SSD delegations occurred in late May and early June in Moscow. This meeting was used to finalize our understanding of Russian requirements in each area of potential assistance. It culminated in the signing at the June Bush-Yeltsin Summit of the following four agreements in the SSD area:

SSD Umbrella Agreement. This agreement provides the international legal framework for the provision of U.S. assistance as authorized by the Nunn-Lugar legislation. It specifies that the designated Executive Agents -- DOD for the United States and the Ministry of Atomic Energy (MINATOM) for Russia -- will implement its provisions and enter into appropriate additional implementing agreements under this "umbrella."

Armored Blankets. This agreement committed DOD to provide blankets to MINATOM for the purpose of enhancing the protection provided by nuclear weapon containers and vehicles carrying nuclear weapons in connection with their destruction. The first delivery of 250 nylon blankets was completed on July 14. DOD will produce and deliver an additional 250 sets of 10 blankets each, with first deliveries projected to begin this spring. The total cost of all material, training and services, as well as associated expenses such as transportation, will be significantly less than \$5 million.

Accident Response Equipment and Training. This agreement obligated DOD to provide to MINATOM nuclear accident response equipment, including communications equipment, protective clothing, high energy radiography equipment, and systems used to stabilize and package damaged weapons. DOD is also to provide spare parts, initial training, and possibly initial maintenance services. Delivery of the first sets of the equipment began on January 19, 1993 and should be completed by the end of this year, with a total cost not to exceed \$15 million.

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Fissile Material Containers. Under this agreement, DOD will provide initially to MINATOM up to 10,000 fissile material containers to be used exclusively for providing protective transport and storage of fissile material from dismantled nuclear weapons. Production of the containers should begin in the U.S. by early 1994, and delivery is scheduled to be completed by December 31, 1995. Prototype testing was completed in January of this year, and the first 10 prototypes should be delivered by March. The agreement also allows for the production of additional containers, as long as the total cost to the U.S. does not exceed \$50 million.

In addition to reaching these agreements, the sides continued their work on railcars, storage facilities, the disposition of highly enriched uranium, and nuclear materials control and accounting.

The SSD Delegation returned to Moscow in late August. At this meeting, the sides signed an agreement on railcars and initialed two others:

Railcars. Under this agreement, DOD will provide Russia conversion kits for cargo and guard railcars to render them safer and more secure for transporting nuclear weapons and weapons material. Up to 100 cargo railcar conversion kits and 15 guard railcar conversion kits are to be delivered, at a cost of no more than \$20 million. A Russian railcar designed to transport nuclear cargo was shipped to the U.S. last December to be used in the development of the conversion kits. The car will be returned to Russia for demonstration this June in preparation for joint modification of four railcars by September. The target delivery date for all kits is April 30, 1994.

Storage Facility. This agreement, subsequently signed in Washington, committed DOD to provide technical assistance to the Russian-led effort on design of a storage facility for fissile materials derived from the dismantlement of nuclear weapons. Costs to the U.S. are not to exceed \$15 million. Initial Russian design requirements were received on August 3, 1992. Several U.S.-Russian technical meetings have already been held on this project.

HEU Disposition. This agreement would commit Russia to sell to the U.S. about 500 metric tons of highly enriched uranium (HEU) derived from dismantled nuclear weapons. The HEU would be blended down to low-enriched uranium (LEU) and sold by DOE for use in civil power plants. The agreement would be budget-neutral for the U.S., in that DOE would finance the purchase with receipts of sales to utilities and with the savings derived because the availability of the Russian LEU reduces the need to enrich U.S. uranium in DOE facilities.

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Therefore, no Nunn-Lugar funds would be expended under this agreement. The U.S. has emphasized to Russia, Ukraine, Belarus, and Kazakhstan that we will not sign the contract for this purchase until they have reached agreement on an equitable and appropriate sharing of the proceeds of the sale.

Discussions also continued on the subject of nuclear material control and accounting, and agreement was reached on a bilateral work program that has included technical exchanges, seminars, and site visits.

In October, Congress passed the FY93 DOD Appropriations Act, which made an additional \$400 million available for transfer within existing DOD accounts for specified demilitarization activities in the former Soviet Union, thus increasing the amount of transfer authority for U.S. assistance from \$400 million to \$800 million. This increase reflected the expanding scope of the SSD effort and was also intended to help accelerate the pace at which warheads would be removed from systems to be eliminated, and ballistic missiles and heavy bombers would be eliminated, under START. In our subsequent meetings with our counterparts in Russia and the other three states, we emphasized the intent of U.S. assistance to expedite the dismantlement process.

The next delegation visit to Moscow occurred in November. We presented to the Russians a draft contract for the HEU purchase and a draft agreement on U.S. assistance for the Russian export control system. We also got a better sense of Russian plans and capacity for storage of fissile material, which will help us better tailor our assistance to their needs. Finally, we reaffirmed our earlier offer to provide aid in expediting the elimination of strategic offensive arms slated for reduction under START, and reviewed ways in which U.S. material and technical assistance could be most usefully applied. The Russian experts made some specific requests for assistance and agreed to meet again in a month to elaborate on these requests and to discuss other possible types of U.S. dismantlement assistance.

The HEU discussions continued in Moscow in December and in Washington in January. We agreed to some minor revisions in the already-initialed HEU disposition agreement and reached agreement on the key provisions of the HEU purchase contract. In the same meetings, DOE reached agreement with the Russian side to purchase 4.1 million pounds of LEU in the period between now and the time of implementation of the HEU contract, in order to provide Russia an earlier cash flow. Our next steps will be to seek Russian signature of the revised HEU disposition agreement and to complete negotiation of the HEU and LEU purchase contracts.

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Our SNDV dismantlement experts returned to Moscow in both December and January for additional exchanges of information to better define Russian needs for U.S. assistance in this area. The sides should soon be at the point where a detailed agreement for U.S. dismantling assistance can be drawn up and completed in a timely manner.

Annex A summarizes the current status of the SSD Delegation's efforts in each area in which U.S. assistance to Russia has been discussed. Also included in this annex are commitments of Nunn-Lugar funds that have been negotiated by other representatives of the Administration.

Ukraine

We made our initial visit to Kiev in April, 1992, just as Ukraine was being certified for U.S. assistance under the Nunn-Lugar legislation. I emphasized U.S. interest in providing Ukraine assistance to accelerate the dismantlement process and enhance its safety and security, and asked for Ukrainian proposals on how we might help. Ukrainian officials identified three areas for assistance:

-- development of an accounting system for nuclear materials;

-- dismantlement of strategic systems after the warheads had been removed; and

-- retraining and provision of transitional social services, such as housing, for nuclear-trained military officers whose services would no longer be required as the nuclear withdrawal proceeded.

They also indicated that U.S. aid in developing an emergency response capability to deal with nuclear accidents would be welcomed, but they made no specific proposals in this area.

I urged the Ukrainians to prepare detailed proposals for our next meeting, so the U.S. would be able to evaluate costs and potential timeframes for assistance.

We returned to Kiev in early June. At that meeting, Ukrainian officials made specific proposals for assistance in dismantling silo-based missile systems covered by the START Treaty, for emergency accident response, and for controlling nuclear materials produced by Ukrainian power plants. Regarding the earlier Ukrainian request for assistance for social infrastructure, I explained that this type of assistance was not contemplated under the existing Nunn-Lugar legislation, but asked Ukrainian officials to provide a detailed statement of requirements so that the U.S. government could assess their applicability under other, relevant legislation.

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Our third round of discussions in Kiev occurred in October. At this meeting, we focused on five potential agreements:

- an umbrella agreement, similar to the one signed with Russia, to establish a legal framework for U.S. assistance;
- an emergency response agreement, under which DOD would provide equipment for use in the unlikely event that a nuclear accident occurred during transport of a weapon for dismantlement;¹
- a material control and accounting agreement, providing assistance in developing and strengthening a system to keep track of all fissile material maintained for civilian use;
- an export control agreement, providing assistance in developing a comprehensive system of export controls to guard against proliferation of weapons of mass destruction, technology, and expertise; and
- a government-to-government communications link (GGCL), similar to the existing U.S.-Russian nuclear risk reduction centers, with the primary purpose of exchanging the data and notifications required by the START and INF treaties.

We were able to resolve at the technical working level all substantive issues regarding the first four of these agreements. On GGCL, there was serious Ukrainian interest in the concept and many details of the agreement were resolved.

We also continued our discussions on U.S. assistance for ballistic missile dismantlement. The Ukrainians prepared a comprehensive plan for dismantlement and provided us a list of their requirements for U.S. assistance that went well beyond the initial set provided in June. In response, we agreed in principle to their initial requests and promised to study the new requests.

¹ We would assist Ukraine in expanding its limited emergency response capabilities in connection with the removal of nuclear weapons from its territory for dismantlement. Under a signed implementing agreement, DOD will provide similar assistance to Belarus, and we have proposed the same type of aid to Kazakhstan. However, because nuclear weapons in these countries will remain at all times in the custody of forces of the Commonwealth of Independent States, the countries will not be provided equipment used to determine internal damage to the weapon itself or to stabilize and package weapons involved in an accident; such equipment will be provided only to Russia.

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In January, I met with Ukrainian Deputy Foreign Minister Tarasyuk in Washington to review the status of our efforts. I reminded him that there were several draft agreements that were close to completion and suggested that our two sides move as quickly as possible to get them completed. I also summarized U.S. thinking on the various Ukrainian requests for ballistic missile dismantling assistance and offered to send an experts team to Kiev as soon as possible to see if the sides could reach an agreement in principle. Finally, I offered to send GGCL experts to Kiev to finalize that agreement. Tarasyuk agreed that several agreements were almost ready for completion and indicated that Ukraine would be prepared to meet with our experts by the beginning of February.

The ballistic missile dismantlement and GGCL experts visited Kiev February 1-4 and made significant progress. Our next step with Ukraine will be to press for signature of the umbrella and the five implementing agreements that are near completion. The U.S. cannot begin to provide assistance under Nunn-Lugar until the umbrella and implementing agreements have been signed and enter into force.

The current status of the SSD Delegation's efforts in each area in which U.S. assistance to Ukraine has been discussed, as well as potential commitments of Nunn-Lugar funds that have been discussed by other representatives of the Administration, are summarized in Annex A.

Belarus

We held our initial discussions in Minsk in early May, a month after Belarus had been certified for Nunn-Lugar assistance. Belarus was at an early stage in the development of its policy, but Belarusian officials did identify in broad terms some possible areas of assistance. After reviewing the types of assistance allowed by the Nunn-Lugar legislation, I encouraged these officials to prepare some detailed proposals for assistance and pass them to us through our embassy.

After some limited exchanges through diplomatic channels, we returned to Minsk in late September. Our discussions during this visit focused on an umbrella agreement, emergency response, export control, and a GGCL. We were able to initial three agreements, which were subsequently signed in Washington:

SSD Umbrella Agreement. This provides the international legal framework for Nunn-Lugar assistance to Belarus.

Emergency Response. Under this agreement, DOD will provide to the Belarusian Ministry of Defense protective clothing and equipment such as dosimeters, as well as related training. The purpose is to enhance capabilities to respond to any emergency associated with the removal of nuclear weapons and their

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delivery systems from Belarus for destruction or their temporary location in Belarus pending their final removal. The total cost to the U.S. will be up to \$5 million.

Export Control. Under this agreement, DOD will provide to the Belarusian MOD technical assistance, training, and limited amounts of equipment to increase Belarusian ability to control its borders, particularly against transshipment of weapons of mass destruction and related technology and expertise. Specific assistance includes providing expertise on multipurpose export control systems; participation in the Coordinating Committee (COCOM) Cooperation Forum; classroom and on-site training for licensing, enforcement, and related officials; evaluation and improvement of export control enforcement programs and policies; and computerized systems and related training to improve tracking and control of controlled items and technology. The total cost is up to \$2.26 million.

We also agreed in principle to establish a highly reliable continuous communications link (CCL). Like the GGCL being negotiated with Ukraine, the CCL would be similar to the existing U.S.-Russian nuclear risk reduction centers, with the primary purpose of exchanging the data and notifications required by the START and INF treaties. We agreed to work out details of a CCL agreement in diplomatic channels.

In January, a team of experts returned to Minsk and completed the CCL agreement. The agreement was signed at that time.

Annex A includes a summary of the status of efforts in all areas where U.S. assistance to Belarus has been discussed.

Kazakhstan

Kazakhstan was certified for Nunn-Lugar assistance on June 17, after it unambiguously committed to assume non-nuclear status, to adhere to the Nuclear Nonproliferation Treaty as a non-nuclear weapons state, and to withdraw all strategic forces from its territory by the end of the START I reductions period.

We made our initial visit to Alma-Ata in early November. I outlined a proposed program of assistance, which included emergency response, export controls, a GGCL, ballistic missile dismantlement, and material control and accounting. The response among Kazakhstani officials was enthusiastic; they agreed to consider these proposals, as well as other areas of possible assistance, and provide a list of programs of interest through diplomatic channels. It was also agreed that we would provide within the two subsequent weeks draft agreements for Kazakhstani consideration, and that a Kazakhstani delegation would then travel to Washington to complete and sign agreements.

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Although the Kazakhstani visit to Washington was tentatively scheduled for December, Alma-Ata subsequently indicated that it was not ready for the trip. We have been encouraging them to come to Washington as soon as possible; a visit is now tentatively scheduled for the first week of March.

Annex A includes a summary of the status of efforts in all areas where U.S. assistance to Kazakhstan has been discussed.

NATO Ad Hoc Group

In March, 1992, NATO established an Ad Hoc Group to discuss nuclear weapons in the former Soviet Union. This group allows the Allies to exchange information about our respective programs to assist safe and secure dismantlement of these weapons and to coordinate our efforts informally in this area, to help ensure that there is no duplication of effort. There have been numerous meetings of this group, the most recent on January 29, and we have been able to work closely with our Allies on these issues.

The Future Agenda

The immediate tasks with regard to Russia are to secure Russian signature of the HEU disposition agreement, complete negotiation of the HEU and LEU purchase contracts, and conclude an agreement on U.S. assistance for dismantlement of strategic systems. Also pending are agreements on export control and material control and accounting. Other areas in which Nunn-Lugar funds will be committed are military-to-military contacts and Arctic nuclear waste assessment. Implementation of the entire set of agreements will, of course, continue over several years.

No agreement has yet been signed with Ukraine. The first task is to secure signature and entry into force of the umbrella agreement. After that, we could immediately conclude the implementing agreements on emergency response, material control and accounting, and export control. Recent experts discussions on GGCL and ballistic missile dismantlement assistance should make near-term agreements in those areas possible as well. In other channels, the Science and Technology Center Agreement remains to be concluded and military-to-military contacts remain to be established.

The negotiating agenda with Belarus is well advanced, although we are looking for other areas of possible assistance now that Belarus has ratified START and acceded to the Nuclear Nonproliferation Treaty. Military-to-military contacts also remain to be worked out in other channels.

We are still in the early stages with Kazakhstan. We have yet to receive a response from the Kazakhstani government to the draft umbrella and implementing agreements we provided them

in November. Therefore, negotiation of all agreements lies ahead. The list of potential implementing agreements includes emergency response, export control, GGCL, ballistic missile dismantlement, and material control and accounting. Military-to-military contacts also will be discussed.

Conclusion

During the first year of its effort to implement the intent of the Nunn-Lugar Act, the SSD Delegation worked to secure agreement on two dozen different documents and developed a technical basis and expertise to provide dismantlement assistance. This involved participation by the Departments of State, Defense, Energy, and Commerce, and the Arms Control and Disarmament Agency. Much of the initial phase of the work -- preparation of plans and execution of intergovernmental agreements -- is complete with Russia and Belarus. Significant progress has been made with Ukraine, although agreements have yet to be signed. Considerable work remains to be done only with Kazakhstan, in view of its inability thus far to respond to our initiatives and invitations.

At the same time, implementing agreements have been executed in many areas and goods and services provided under a number of these agreements have begun to flow. Having completed most of the preliminary work, we anticipate a significant increase in the volume of assistance provided during 1993.

While more work remains to be done, I believe that we have established a good working relationship with the four states involved and that additional agreements can be reached in the near future. I am confident that this cooperative initiative between the Administration and the Congress, by encouraging the timely, safe and secure dismantlement of former Soviet nuclear weapons, and by helping to prevent proliferation of nuclear capabilities, will continue to enhance international and bilateral stability.

ANNEX A
STATUS OF SSD AND OTHER NUNN-LUGAR ASSISTANCE EFFORTS

<u>Project</u>	<u>Status</u>	<u>Cost (\$Millions)</u>
RUSSIA		
SSD:		
Armored Blankets	Agreement signed	5.0 ✓
Accident Response	Agreement signed	15.0 ✓
Fissile Material Containers	Agreement signed	50.0 ✓
Railcars	Agreement signed	20.0 ✓
Storage Facility Design	Agreement signed	15.0 ✓
Material Control and Accounting	Discussions continuing	7.5 ✓
Export Control	Discussions continuing	2.26 ✓
Strategic Systems Dismantling	Discussions continuing	TBD
SSD, Not Financed under Nunn-Lugar:		
HEU Disposition	Agreement initialed	0.0
Other:		
International Science and Technology Center	Agreement signed; ratification pending	25.0
Chemical Weapons Destruction	Agreement signed	25.0
UKRAINE		
SSD:		
Emergency Response	Discussions continuing	5.0
Material Control and Accounting	Discussions continuing	7.5
Export Control	Discussions continuing	2.26
GGCL	Discussions continuing	2.4
Ballistic Missile Dismantling	Discussions continuing	TBD
Other:		
Science and Technology Center	Discussions continuing	10.0
BELARUS		
SSD:		
Emergency Response	Agreement signed	5.0
Export Control	Agreement signed	2.26
CCL	Agreement signed	2.3
KAZAKHSTAN		
SSD:		
Emergency Response	U.S. proposal provided	TBD
Export Control	U.S. proposal provided	TBD
GGCL	U.S. proposal provided	TBD
Ballistic Missile Dismantling	U.S. proposal provided	TBD
Material Control and Accounting	U.S. proposal provided	TBD