

**CONFERENCE ON GLOBAL NUCLEAR MATERIALS MANAGEMENT
THE EMERGING NUCLEAR ERA—POLICY RECOMMENDATIONS
JULY 22, 1999**

Welcome Remarks: *Sam Nunn, Chairman, CSIS Board of Trustees*

Former Senator Nunn opened the Global Nuclear Materials Management Conference with a look at the fragile calm of today's nuclear world. The reality of increased proliferation risks, specifically in the former Soviet Union, makes cooperation with Russia essential. If these issues are not given the necessary priority and leadership, major event could occur with terrible results. In the face of such risks, the five Task Forces of the Global Nuclear Materials Management Project made recommendations that strive to renew and expand current objectives while creating new initiatives for cooperation.

Funding Nuclear Security: *Matthew Bunn, Assistant Director of the Science, Technology, and Public Policy Program, Belfer Center for Science and International Affairs, John F. Kennedy School of Government, Harvard University; Vice Chairman, Task Force I*

Matthew Bunn highlighted the threat posed by poorly guarded nuclear materials and called upon the government to devote more resources to improving nuclear security, especially in Russia. Despite some obstacles, increased funding could:

- Buy vulnerable HEU and blend it into a nonweapons usable form;
- Consolidate material at a smaller number of sites and increase security at remaining sites; and
- Finance plutonium disposition.

In the long run, Russia could generate revenue for nuclear security through spent fuel storage, HEU sales, or a debt-for-security swap.

An International Spent Fuel Storage Facility and the Russian Nuclear Complex: *Atsuyuki Suzuki, Professor of Nuclear Engineering, University of Tokyo; Chairman, Task Force II*

Atsuyuki Suzuki presented the findings of his task force on the issue of establishing an international nuclear storage facility, possibly located in Russia. A number of storage facility proposals currently exist; however, commercial viability, confidence, and political and institutional stability are prerequisites for any program's successful implementation. Benefits from a storage facility range from ameliorating international environmental issues to achieving improved transparency to stabilizing Russia and some of the former Soviet states. Task Force III recommendations include:

- The United States should encourage the development of a storage facility, open early discussions with the Russian government, and outline a set of criteria with which to evaluate any facility;
- The United States should share technological developments with its partners;
- International solutions should supplement national programs; and
- The Japanese government should be encouraged to take a leadership role on an international storage facility at the G-8 Summit in the year 2000.

Commercializing the Excess Defense Infrastructure: *Roger Howsley, Head of Security and International Safeguards, BNFL; Chairman, Task Force III*

Roger Howsley spoke of the problems and opportunities of commercializing Russia's nuclear complex. Summarizing Task Force IV's findings, he discussed significant obstacles to commercialization including:

Discouragement of Foreign Direct Investment: Russia's red tape, i.e. limited access to closed cities, and the unstable political environment makes it difficult for foreigners to invest in the nuclear industry; and

Poor health of the Western nuclear industry limits Russia's potential market as well as the pool of likely investors.

Howsley outlined recommendations to address these obstacles, focusing on the need to reform Russian laws surrounding foreign direct investment. In addition, Russia will need to separate defense and civil use of nuclear energy before successful commercialization is possible.

A View From the Hill: Senator Pete V. Domenici & Senator Bob Kerrey

Due to obligations on the Hill, Senator Domenici and Senator Kerrey were unable to speak at the Conference. Senator Domenici sent Peter Lyons from his staff to speak on his behalf. Dr. Lyons read Senator Domenici's prepared speech.

Senator Domenici expressed his view that Congress is taking an increasing interest in the nonproliferation of nuclear supplements. Time constraints and the fear of a nuclear North Korea, Iraq, or Iran have brought forth proposals such as the new bill on a repository facility. Although these efforts are vital to nuclear security, Senator Domenici expressed his belief that these new bills contain too many loopholes and compromises. He asserted that research possesses the most potential for the future. In addition, Senator Domenici wrote that excess HEU must be transformed into non-weapons form, the number of trained nuclear engineers should be increased, and establishing a "level playing field" on the environment and emissions must be a priority. In closing, he stated that programs like the Global Nuclear Material Management Project bring to light many of the important issues facing today's nuclear world.

Senator Kerrey also prepared a statement for the Conference. His speech proposed that a false sense of security has befallen the United States since the fall of the Soviet Union. Relying on either START II or negotiations on START III to obtain safe nuclear reductions will not bring results. Instead, the necessary dramatic reductions must be carried forth through a three-fold domestic process: bold Presidential action, strong leadership from Congress, and pervasive education of the public on the dangers of today's nuclear world. It is not the fear of a planned nuclear attack which threatens us now. It is proliferation, state instability, and decaying infrastructures that make nuclear accidents an ever-increasing possibility.

Keynote Address: James R. Schlesinger, Former Secretary of Energy, Secretary of Defense, and Director of Central Intelligence; Counselor and Trustee, CSIS

James Schlesinger identified the principle lesson of the Gulf War: the United States has tremendous conventional weapons strength, making chemical, biological, or nuclear weapons the only ways to challenge U.S. military power. This Gulf War legacy will fuel weapons proliferation for years to come. Proliferation, Schlesinger pointed out, is not only limited to China, Russia or rogue states, but also involves the United States. The United States, after all, helped Israel, France, North Korea, and the United Kingdom to build their nuclear programs. Recently declassified information may indicate that transparency measures have gone too far.

Looking to the future, the most likely scenario is a slow spread of nuclear weapons. Transparency will progress slowly as countries continue to make national security a higher priority than international openness. The good news is that sub-national and terrorist groups are unlikely to obtain nuclear weapons. However, terrorist groups will continue to focus on obtaining a cheaper, easier fix--biological and chemical weapons. Schlesinger also reminded the conference that nonproliferation efforts have met with a large amount of success if the number of declared nuclear powers predicted in the 1960s is compared with the actual numbers today.

A View from the Administration: *Ernest Moniz, Undersecretary of Energy*

Ernest Moniz agreed that nuclear materials management is critical to U.S. security. In particular, he highlighted the importance of plutonium disposition, transparency, spent fuel storage, and the consolidation of fissile materials. While acknowledging that progress on these issues may appear slow, Moniz delineated some of the successful programs of the last five years. These included:

- Close cooperation between Russian and U.S. scientists on military issues;
- MPC&A program, which has secured significant amounts of weapons-grade material; and
- HEU purchase agreements.

Transparency: *Roger Hagengruber, Senior Vice President for National Security, Sandia National Laboratories; Chairman, Task Force IV*

Task Force IV defined transparency as “a cooperative process that is based on thorough risk/benefit assessments.” It is a process, Roger Hagengruber further explained, of thinning the veil; something between a “flash” and a “full Monty.” While recognizing the existence of legal constraints and national security concerns, Task Force IV recommended the implementation of further transparency measures, including:

- Strengthening the U.S.-Russia relationship with the hope that it could become a “model” for other bilateral relationships;
- Strengthening IAEA standards and increasing support for IAEA activities; and
- Negotiating data exchange and transparency among the P-5.

Such transparency measures will require IAEA and Russian support as well as strong U.S. leadership.

U.S. Domestic Infrastructure and the Emerging Nuclear Era: *John Taylor, Former Vice President, Nuclear Power, Electric Power Research Institute; Chairman, Task Force V*

John Taylor candidly spoke of the diminishing strength of the U.S. nuclear industry. In reaction to this fall and in recognition of the gravity of nuclear security, Task Force V made recommendations to reinvigorate U.S. innovation:

- Increase leadership at the top level of the U.S. Administration;
- Continue global involvement to control fissile material, to reduce nuclear arms, and to increase nuclear power plant safety; and
- Re-direct domestic nuclear energy.

By establishing a “level playing field” internationally and creating global cooperation, the nuclear era will not only be safer but also more environmentally sound. Therefore, it is imperative that industry and government work together to revitalize the U.S. nuclear industry.

Closing Remarks: *Robert Ebel, Director, Energy and National Security, CSIS & William Potter, Institute Professor and Director of the Center for Non-Proliferation Studies, Monterey Institute of International Studies*

Robert Ebel summarized the findings of the five Task Forces in his closing speech entitled “New Leadership to Reduce the Nuclear Threat: A Call to Action.” He emphasized that international efforts are critical at this time because of the eroding controls in the former Soviet Union and withering U.S. leadership. It is necessary that the private sector, the international community, and the United States – at the very highest levels – be involved in the following areas:

Increased R&D;

Re-engaging in international discussions on safe, proliferation-resistant fuel cycle

Resolving issues on permanent spent fuel repository; and

Creating a more risk-informed, performance-based nuclear safety regulatory process.

Through these recommendations, effective leadership will act, not react in the face of nuclear insecurity.

William Potter, the closing speaker of the conference, called nonproliferation America’s “number one national security issue.” He further expanded on three vital nuclear security problems:

Grim future for the NPT due, in part, to eroding U.S.-Russian cooperation and muted world response to South Asian nuclear tests.

Risk of accident in the Russian civilian nuclear industry. Impoverished and understaffed, Russian nuclear facilities are vulnerable to both accident and sabotage.

Degradation of U.S. leadership. Potter suggested that there is a disconnect between bipartisan statements that nonproliferation is essential and actual resource allocation.