

**Remarks of Adam M. Scheinman<sup>1</sup>**  
**International Export Control Conference**  
**30 September 2002 – 3 October 2002**  
**Warsaw, Poland**

## **Introduction**

The panelists have been asked to focus on developments in the area of nuclear export controls. In thinking about future developments, it's useful to look in the rear-view mirror; our understanding of history can help shape the future.

The history of proliferation and export controls shows a steady ratcheting-up of controls in response to rather serious crises.

The early era of nuclear sharing under Atoms for Peace in the 1950's was jolted by the Indian nuclear test of 1974; this led to the establishment in 1975 of the Nuclear Suppliers Group, which developed conditions for peaceful nuclear trade. The test also led to major changes in U.S. law (1978 Nuclear Nonproliferation Act) governing nuclear supply.

Fastforward 17 years to 1991: exposure of the Iraqi nuclear weapons program following the Gulf War led to adoption of dual-use controls in the NSG, closing a gaping loophole in the regime. Around this time, the Cold War ended, leading to the emergence of new states and/or governments with weak export controls.

Fastforward again to 2002: today, we find ourselves in a transitional phase, where the future is not entirely clear and serious challenges, which, if not checked, are sure to erode the decades-long international effort to prevent the further spread of nuclear weapons.

## **What are the challenges to the regime?**

### 1. Shifting proliferation landscape

- Unchecked proliferation in **South Asia**. India and Pakistan are engaged in a steady nuclear and missile arms race that shows no sign of abating. Both countries remain free of any political or legal constraint on their proliferation programs.
- Looming show-down in **Iraq**. It seems evident that Iraq's nuclear and other WMD ambitions remain. Whatever form international inspections are to take, these inspections will very likely reveal export control loopholes that require immediate redress.
- **Iran's** nuclear program is creeping forward. Like Iraq, Iran too is likely exploiting weaknesses in export controls to advance their nuclear weapons ambitions.
- **New states**. Export control weaknesses in the new states and/or governments in post-Cold War Europe and the former Soviet Union are well known.
- **Nuclear terrorism**. The risk of nuclear terrorism is a genuinely new threat. It is a hard fact that the institutions and arrangements that make up the nuclear nonproliferation regime were not set up to deal with the possibility of terrorists using a radiation source as a weapon.

### 2. Shifting industrial landscape

- Growth of hub-based transit networks and free trade zones. 90% of the world trade value is moved in containers. 2% of that total is inspected. Each container transaction can involve 20 or more parties. Many of these transit hubs are outside of the multilateral supplier regimes. All of this works against monitoring of proliferation-sensitive trade.
- Nuclear industry consolidation. Globalization of industry has impacted the nuclear industry as well. Of a dozen nuclear fuel vendors in existence a decade ago, only three remain today. Those remaining are global industries, raising questions about the transfer of nuclear technology across state lines.

---

<sup>1</sup> Adam Scheinman is Director, Office of Export Control Policy and Cooperation, National Nuclear Security Administration, U.S. Department of Energy. These remarks do not necessarily represent those of the U.S. government.

- Market contraction. The continuing contraction of the global economy introduces added pressures to export.

## **What is to be done?**

### **1. Regime enhancements:**

The Nuclear Suppliers Group (NSG) is taking a number of steps to address today's challenges. This includes (1) revising the NSG Guidelines to make the prevention of nuclear terrorism an explicit regime goal; (2) conducting outreach to the "outliers," (India, Pakistan, Israel, China and selected transshipment states); and (3) continuing information exchange efforts to share data on problem end-users.

The United States has also introduced a proposal to share information not just on denials, but on export approvals as well. This would provide a better understanding of how proliferators "shop" for proliferation-related technology.

### **2. International cooperation:**

The globalization of transit trade and practice of proliferators using intermediaries and front companies to acquire commercial technology suggests that we cast our net far wider in promoting global adherence to international nuclear export control standards.

DOE, working with other U.S. government agencies, is expanding its international assistance efforts to include not only new suppliers (e.g., Russia, Ukraine, Kazakhstan), but also transit states in regions of proliferation interest (e.g., Middle East, the Southern Tier, and East Asia).

The key area of interest in our cooperation program is identification of controlled commodities. Dual-use is the larger challenge. History shows that proliferating states have advanced their programs not by seizing whole weapons or bomb fuel (highly enriched uranium or plutonium), but by piecing together the facilities and know-how needed develop weapons/fuel on their own.

The DOE program focuses on development of technical teams for commodity identification in the border agencies, working in partnership with national technical institutes and training academies.

### **3. Institutionalizing international programs:**

One element is the continued exchange of licensing and enforcement experts. All of the multilateral supplier regimes now bring together such experts. The NSG has held one such meeting, but the effort requires greater focus and direction.

A second element is drawing on the IAEA and WCO. Both are strong, professional organizations that help in a number of areas. The WCO, e.g., could work with the NSG in developing best practices for enforcement of nuclear export controls. The IAEA's long association with national nuclear technical institutes could be better exploited to train states in the art of export control. It might be worth making export control and border security a more prominent focus of the IAEA's technical cooperation program. More could be done with the IAEA in focusing Additional Protocol outreach. The Additional Protocol requires states to report imports and exports of items on the NSG trigger list.

A third element is improved coordination of USG and EU assistance programs. A good start has been made, but more could be done to schedule activities, avoid overlap, and better harness our shared resources.

### **4. Technology Controls:**

Export controls are an exercise in managing the inherent tension between trade and security. Concerning technology controls, security demands that new technologies useful in the development of WMD be controlled. DOE is looking now at a range of new technologies that might merit control in future years. Trade, on the other hand, demands that older technologies readily available from foreign sources be decontrolled. However, weapons of mass destruction are old technologies, making use of

catch-all controls (controls on end-users of concern) critical to the export control mission. The idea suggested earlier in the conference of developing a catch-all item “watch list” is one that merits consideration.

Intangible technology transfers introduce still greater challenges. These challenges cannot be overlooked and responses cannot be delayed. The proliferators are not waiting. It’s worth recalling that Iraq in the 1980’s relied on European technologists in an attempt to manufacture uranium enrichment equipment to the required tolerances. Stories of Pakistani scientists sharing nuclear know-how with the Taliban are chilling.

One worthwhile step would be to conduct a peer review of national technology control practices. Such a review would allow states to share information and experiences; it might also point to potential loopholes. A second and related step would be to review technology control programs of nuclear/dual-use industries; this might provide better insight into efforts to protect against the loss of proprietary commercial data.

**Conclusion:**

The bad news is that we are in a transitional phase, with history is being written as we meet. We certainly can’t ignore the prospect of a new shock – be it an act of nuclear terrorism or additional states following India and Pakistan across the nuclear threshold.

The good news is that most or all of the elements of a solution are already in progress or in sight, thanks to the solid efforts and commitment of all governments and groups represented at this conference.