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US/Russia Pu Disposition Agreement

Michael A Guhin

It is a pleasure to be here today to discuss one of the many important nuclear challenges of the post-Cold War world. I want to thank Director General John Ritch, Chairman Agneta Rising, and the organizers of this Symposium and distinguished guests for this opportunity.

The challenge is easy to define. Progress in US and Russian arms reductions has resulted in tons of weapons-grade fissile materials that are no longer required for any defence purposes. The question is how best to ensure that this material is never used for weapons and never comes into a proliferator's hands, whether that be a proliferating nation or a sub-national group.

How to meet this challenge, however, is far from simple. I am often reminded of Glendower's boast to Hotspur: "I can call spirits from the vasty deep". To which Hotspur replies, "So can I and so can any man, but will they come when you do call for them".

To help meet this challenge, the United States has pursued a multi-pronged strategy since the early 1990's. This strategy includes cooperation with and assistance to Russia concerning:

- promptly upgrading nuclear material protection, control and accounting at dozens of facilities in the Russian Federation;
- building a facility for the safe and secure storage of weapons plutonium and highly enriched uranium known as the Mayak Fissile Material Storage Facility, which will be completed early next year;
- productively engaging Russian nuclear and other weapons of mass destruction scientists and engineers in peaceful commercial activities through the International Science and Technology Centres;
- closing down the last three plutonium production reactors in the Russian Federation as soon as practicable under a 1997 US – Russian agreement;
- dismantling of Russian ballistic missile submarines and monitoring the disposition of the reactors' spent fuel;
- blending down 500 tonnes of weapon-grade highly enriched uranium into low enriched fuel for power reactors, a form not usable for weapons;
- transforming weapons-grade plutonium into forms unusable for weapons, such as spent fuel.

Each of these programmes contributes importantly to solving the puzzle of how to protect against the proliferation of Russian nuclear materials, expertise and technologies. From 1992 through 2001, the United States contributed an estimated US\$3 billion to these types of nuclear weapons and material security programs.

The Bush Administration undertook early on to review all non-proliferation assistance programmes with Russia, examining their relative merits and whether or how they might be improved. Final decisions have not yet been reached. It is to be expected that the review of alternatives for cooperation with Russian plutonium disposition will require some months to complete. Review of the US disposition programme will also take some time.

Disposition of weapons-grade plutonium remains an important part of the puzzle, but it is complicated. Unlike highly enriched uranium, it cannot simply be blended down into a weapons unusable form; or, in today's markets, even profitably into a commercially viable material.

The only proven paths to plutonium disposition for the near- to mid-term are irradiation or "burning" as mixed oxide fuel (MOX) in reactors and "immobilization" – for example, in the form of ceramic disks surrounded by high-level radioactive waste in large containers. As for marketability issues, without unforeseen changes in uranium markets, MOX fuel is likely to remain uneconomical or non-competitive for the next few-to-several decades. These considerations make plutonium disposition far more difficult than disposition of weapons-grade uranium, and the uranium arrangements themselves have not been easy or without wrinkles.

Still, we have made considerable progress in establishing the conditions or framework for plutonium disposition to go forward. The US-Russian Federation agreement of September 2000 sets forth the irreversibility and non-proliferation conditions and the principles for monitoring and inspections regarding each country's disposition programmes, as well as the conditions for assistance to Russia's programme. It also sets forth timetables and elements for each side's programme.

Other countries, in particular G-7 partners, have recognized the importance of the safe and effective disposition of weapons-grade materials. It has been prominently featured in G-8 Heads Communiqués or Foreign Ministers Statements since the Moscow Nuclear Summit in 1996. The UK and France have announced substantial financial contributions for Russia's plutonium disposition program. Japan has announced some assistance as well. These are on top of the 1999-2000 US pledge of US\$400 million.

However, we are still a long way from putting together an effective programme for Russian disposition. It has been clear from the outset that the most difficult part of the disposition puzzle concerns how to define a cost-effective and viable Russian programme and how to finance it given the "economics" of plutonium. Considerable common ground has existed among contributing partners on the need for substantial assistance to Russia for the investment or pre-operational phases of its disposition program. But, after that, consensus breaks down.

Russia has stated that full international financing or assistance is necessary for its programme to go forward. That program is currently estimated in year-2000 dollars at about US\$1 billion for investment (pre-construction and construction work) and more than US\$1 billion for operations extending over nearly two decades – plus the costs for international management, and monitoring and inspections.

Some G-7 partners, including the United States, have made clear that any programme that seeks to rely on international assistance for operational costs is simply not viable and not acceptable. When the G-8 Plutonium Disposition Planning Group wrapped up its work prior to the Genoa Summit, three major questions were posed for future work:

1. Can a cost-effective Russian program be developed?
2. How can such a program be financed?
3. Can non-governmental revenue or commercial streams be developed to cover or help cover at least operational costs?

Possible non-governmental revenue sources under consideration include the export of MOX for burning in reactors outside of the Russian Federation, and the possible return of spent fuel to Russia. As you well know, these concepts raise technical, economic and political concerns that require careful analysis.

A key problem is that Russia has, to date, given insufficient priority and resources to this programme. In-kind contributions from Russia are important and not insubstantial, but they are clearly not enough. Ways will need to be found in this area, not to mention others, which enable Russia to shoulder more of its own burden. We need to move away from a relationship that relies so heavily on assistance for the long term.

Another key barrier is that the total of G-7 financial pledges falls considerably short of estimated investment costs alone. Whatever its details, plutonium disposition warrants wider support. The non-proliferation benefits from Russian disposition are in Europe's and Asia's interests at least as much as they are in the US interest.

It is obvious what is wrong with this picture. BUT how to get it right is far from obvious, and that is at the heart of the Administration's review of disposition.

The question is not whether plutonium disposition is important. It is. The question is also not whether disposition of weapons-grade materials should ever go forward, but rather how and when it can go forward effectively.

Answers to such questions demand a review of programme elements and assumptions that took hold in different times. Once the US review is completed, we look forward to continuing to work closely with Russia and G-7 partners in forging a path forward. Working together, I remain confident that the challenge can be effectively met - but it will not be easy.

Meeting these challenges would be easier if Russia should see its interest in developing a more constructive and cooperative non-proliferation relationship overall and in proceeding accordingly. President Bush has on several occasions outlined the key elements for building such a relationship spanning several areas besides non-proliferation.

I, of course, have no intention of addressing those broader issues outside the purview of my responsibilities for plutonium disposition. I note them, however, lest we forget that plutonium disposition represents but one piece – albeit an important one – of a much larger and more complicated puzzle.