

Nuclear Materials Management in a New Era of Arms Control

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The Implications of a New Era in Arms Control on
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I found it very difficult to organize my thoughts for this meeting. First, I was sure the previous panelists would already have said everything worth saying. Second, the title of this panel—and the workshop—contains the phrase “a new era in arms control,” and I, for one, was uncertain about the nature of this “new era.”

I know many people who think we’ve reached the end of arms control. That arms control was necessary during the Cold War stand-off between potentially hostile major powers, who could not defeat each other (or at least achieve victory) in a war. But that it is no longer an appropriate device for managing relations between U.S. and Russia, who are not adversaries.

But I, and, I think, much of the world, looks at the United States and Russia and sees an enormous unfinished agenda—very large deployed strategic arsenals, much of it ready for instant use; very large stockpiles of nonstrategic and reserve warheads; very large stockpiles of surplus nuclear components and nuclear materials. We keep saying that Russia is our partner, but it is difficult if not impossible to justify our nuclear posture except by reference to Russia; for what other possible reason do we need thousands of nuclear weapons ready for use?

The agreements in place promise to address only part of this Cold War legacy. The SORT treaty requires a reduction in only the number of deployed strategic warheads; it contains no verification provisions (apart from those contained in the START treaty, which will expire before the SORT limits take effect); the limits take effect the day before the treaty expires; and the treaty does not cover warheads on delivery vehicles that are temporarily removed from deployment; reserve strategic warheads; nonstrategic warheads. In addition, the administration is at best uncommitted to the Comprehensive Test Ban Treaty, and appears to be considering the development of new nuclear weapons.

At the risk of seeming reactionary, I preferred the approach of the Clinton administration, which pursued a broader arms control and transparency agenda with Russia. As you may remember from the Helsinki summit in 1997, the Clinton administration pursued comprehensive declarations and associated transparency measures regarding total stockpiles of nuclear weapons and nuclear materials, controls on nonstrategic warheads, the verified elimination of excess warheads; and, of course, a permanent end to nuclear testing and the development of new nuclear weapons. I hope that in another 14 months we'll be able to return to this agenda.

It is unfashionable to suggest that there is a link between the nuclear arsenals and associated policies of the United States and nonproliferation. While it very unlikely that the decisions of Iran or North Korea to pursue a nuclear weapons program depends on the size of the U.S. nuclear stockpile or whether the Senate ratifies the CTB, I do think there are important linkages between U.S. nuclear posture and nonproliferation, and that we ignore these linkages at our own peril.

First, our policies do influence the incentives of countries to pursue or curtail nuclear weapons programs. If we embrace unilateral military action and at the same broaden U.S. nuclear threats to potential adversaries who are not armed with nuclear weapons, in situations ranging from deterring or responding to chemical and biological attacks to destroying deep underground bunkers, then we can expect other countries to want to get nuclear weapons in order to deter the United States. I don't have enough time to explain why these initiatives will have little or no positive political or military utility, but in traveling around the world I have heard many people say that the lesson other countries are learning is "if you don't want to be another Iraq, you better get nuclear weapons." The public explanation by Secretary of Defense Rumsfeld for the difference in U.S. policy toward Iraq and North Korea—that we will attack Iraq because it might acquire nuclear weapons but we will not attack North Korea because it already has a nuclear weapon—sets a very unfortunate example for other countries that contemplate coming into conflict with the United States.

This message applies beyond U.S. adversaries. After all, if the United States, by far and away the strongest military power, needs nuclear weapons to counter non-nuclear threats, then why does not every other country have even more need for nuclear weapons, particularly countries facing far more dire security threats or those that are not covered by U.S. security guarantees? As Pakistan and North Korea demonstrated, nuclear weapons are not that difficult to acquire. Iraq may have been thwarted, but what about Iran? Many countries could build nuclear weapons in a few years or less if they decided to so, despite our best efforts to prevent it.

Second, nonproliferation is largely a voluntary and cooperative game; for most part, we are able to act effectively against proliferators only to the extent that we can marshal widespread international support. The nonproliferation regime is a vast web of formal international agreements and informal cooperation. Despite a few notable failures, it has been highly successful and has greatly benefited the security of the United States. Cooperation among states with nuclear capability is vital to control the flow of nuclear materials and combat nuclear terrorism. This web of agreements and this level of cooperation cannot remain intact for long if the United States claims for itself alone the right to use nuclear weapons first, even against non-nuclear weapon states, and to develop and test a new generation of weapons for this purpose.

Thus, U.S. nuclear policy is contributing to the erosion of the nonproliferation regime—we are actively eroding our negative security assurances, and the widespread perception is that we have decided to renege on the Article VI commitment by exploring new nuclear weapons, maintaining a very large nuclear stockpile, and rebuilding the infrastructure necessary to maintain and enhance this large stockpile throughout the remainder of the 21st century.

Unfortunately, the nonproliferation regime is in trouble for other, even more fundamental reasons. The safeguards system that was erected as a barrier to weapon development focuses on a single route to the bomb: the covert diversion of material from safeguarded civilian facilities. This system has been largely successful, but other routes to bomb have grown in importance—particularly the potential for theft of nuclear material, and the acquisition of technologies for the production of nuclear material—either overtly or covertly—under the covert or guise of a civilian nuclear power program. The Nuclear Suppliers Group has proven inadequate to prevent the spread of technology, largely because key suppliers like Pakistan are outside the NSG and partly because the relevant technologies are now within the reach of what we used to regard as technically unsophisticated countries. The additional protocol is a response to the problem of covert facilities, but it may be too little, too late, inasmuch as the main problem is the spread of centrifuge technology, which is extremely difficult to detect.

Many people are coming to the conclusion that nonproliferation regime is badly in need of a major overhaul. One element of this overhaul is a recognition that responsibility for the security of nuclear facilities and nuclear materials should not lie solely with the host state. Every country in the world has a vital interest in the protection of nuclear material anywhere in world. A chain is only as strong as its weakest link; thieves can be expected to try to steal material where it is least well guarded. Materials that are directly useable in nuclear weapons—particularly HEU, which can be fashioned into a weapon by any state or a reasonably sophisticated terrorist group—should be protected as well as nuclear weapons are protected in the United States. We need an expanded convention for physical protection in which states agree to apply appropriate international standards to material within their borders, and to submit to some form of peer review to assure the international community that these standards are being achieved.

Another element goes to the heart of Article IV of the NPT: the right of non-nuclear weapon state parties to peaceful uses of nuclear energy, so long as they are under safeguards. As we have seen in Iraq, North Korea, and Iran, countries have abused Article IV to achieve nuclear technologies, ostensibly for civilian use, for which there is no economic or technical justification. In other words, countries have used Article IV to undermine and contravene the fundamental undertaking of the NPT—to prevent the spread of nuclear weapons. We must put an end to this.

One possibility is to require that plans for the peaceful use of nuclear energy be approved in some way by the international community. One possible mechanism would be to require countries to deliver comprehensive reports to the IAEA on current programs and long-term plans for civilian nuclear development, give the IAEA responsibility for analyzing the technical and economic rationale for these programs and plans, and subject them to approval by the IAEA Board of Governors. If a country, for example Iran or North Korea, claims that an enrichment or reprocessing plant is a rational component of a civilian program, this would likely be rejected by the IAEA and the BOG.

Another possibility is for a consortium of nuclear suppliers—the United States, the Euratom countries, Russia, and Japan—to formally agree to supply low-enriched uranium fuel for the lifetime of any reactors they build if these countries agree not to develop or otherwise acquire enrichment or reprocessing technologies; develop or otherwise acquire enrichment or reprocessing technologies; produce or otherwise acquire significant amounts of HEU uranium or plutonium, except under very strict rules. These rules might require, for example, that any facility using or capable of producing significant amounts of HEU or plutonium be international owned and operated and be subject to the highest level of safeguards, including transparent facility design and environmental sampling plans.

In summary, we may be at a critical turning point in the nuclear age. We have grown too comfortable in reciting how the proliferation predictions of the 1960s did not come true. Unless the United States modifies its own policies to enhance the taboo against the use and threatened use of nuclear weapons, as part of a larger bargain in which the international community acts to enforce the highest standards of protection for nuclear materials and to stop the spread of technologies for producing nuclear materials, the predictions of dozens of nuclear-armed states (and even non-states) may yet come true.