

VIEWPOINTS

How to handle Cold War leftovers

Neil J. Numark is president of Numark Associates of Washington, D.C., which specializes in nuclear safety, security, and the environmental impact of energy production.

RECENT interceptions by German authorities of plutonium smuggled out of the former Soviet Union highlight the need for much stronger controls over the materials recovered from dismantled nuclear weapons.

If the United States and Russia do not act swiftly, terrorists or rogue states could get hold of enough plutonium for a nuclear weapon, and in a worst case scenario use it for nuclear blackmail. We must immediately upgrade the protection of weapons-grade plutonium stockpiles. But the more compelling need is to reduce drastically the size of the stockpiles. Presidents Clinton and Boris Yeltsin have a historic opportunity to do this when they hold a summit in Washington, D.C., this week.

Russian authorities insist that they provide excellent security over nuclear weapons materials and argue that the West exaggerates the extent of the problem. However, the growing grip of Russian organized crime and corruption, and the potential for cash-starved Russian nuclear weapons workers to sell materials, leave no room for error. For that matter, U.S. security may not be leak-tight, either.

Besides the difficulty with securely storing nuclear weapons materials, the other reason to get rid of them is to demonstrate to each other and to the world that we are not holding them for possible future military use. Only when we begin to destroy our nuclear

arsenal in a safe and irreversible manner will we be in a good position to preach nuclear nonproliferation to others.

The United States and Russia have already signed the START and START II treaties, which eliminated missiles containing nuclear weapons. Also, earlier this year both agreed to inspect each other's facilities that store the plutonium removed from the retired weapons.

What is needed now is a plutonium elimination treaty, providing for the destruction of the vast majority of U.S. and Russian plutonium stockpiles. Clinton and Yeltsin should begin negotiating this treaty at the summit.

Such a treaty should establish the framework and timetable for destroying U.S. and Russian weapons-grade plutonium. The goal should be to achieve an agreed-upon residual inventory within 20 years, from the current inventory of about 100 tons per side to, say, 10 tons each. Each country could comply by whatever method or combination of methods they chose as long as the aggressive treaty goal is met.

We can begin destroying weapons plutonium on a small scale within one year without building any new facilities and without necessarily selecting a particular long-term strategy. This could be achieved by burning plutonium (in addition to uranium) as fuel in one or two existing nuclear power plants.

The benefit of using existing facilities is that we could get the disarmament process rolling immediately. There are no technical obstacles to the concept, which is already applied widely in commercial power plants in Europe. The waste produced in the reactor would be practically indistinguishable from the waste normally produced in nuclear power plants and would be similarly difficult to ever use in a nuclear weapon.

Beyond this initial phase, several options could be considered. We could continue using existing power plants, but on a larger scale. If special plutonium-burning reactors are built in the future for the purpose of producing electricity, they, too, could be fueled with weapons-grade plutonium.

Alternatively, facilities that must be built anyway to process certain nuclear wastes could be used to process weapons plutonium, too. The selection of a long-term plutonium disposition method calls up the perennial debate in civilian nuclear policy circles over whether plutonium should be considered a valuable fuel resource or a liability to be gotten rid of. We must resolve this question to determine a long-term course but should not let it get in the way of at least initiating the plutonium elimination process now using existing facilities.

Disarmament partners

The United States and Russia could approach the entire plutonium disposition enterprise as partners, possibly with jointly owned facilities. We could also seek a multi-lateral disarmament framework involving other countries and an international verification system, if it would expedite the process.

Whatever methods are selected, it will be several years before we have put a dent in weapons plutonium inventories. But this does not justify our *de facto* policy of storing the materials without taking any action to get rid of them, which is dangerous and sends the wrong signal to the world.

Clinton and Yeltsin should not only agree on additional measures to ensure the secure interim storage of weapons plutonium, but also immediately establish the framework for finally eliminating the most dangerous vestiges of the Cold War.

**NEIL J.
NUMARK**
