

A Grand Uranium Bargain

By Thomas L. Neff

The Soviet Government is struggling to transform itself economically and politically while maintaining control of more than 24,000 nuclear weapons in the newly independent republics. Mikhail Gorbachev has pledged to dismantle thousands of them, but the bankrupt Government may not be able to pay for doing so in ways that prevent misuse or wider proliferation. There is, however, a way to pay for disarmament that also provides economic motivation to the republics and the central Government.

The warheads contain substantial amounts of valuable material that can be processed for use in commercial nuclear power plants. It may be advantageous for the U.S. to buy or barter for such materials and turn them safely to commercial use. This can be done in ways that protect Western and Soviet commercial and security interests.

If we do not obtain the material, agents in the former Soviet Union, perhaps uncontrolled by central authority, may flood commercial nuclear fuel markets with material from arms programs or even seek to sell weapons-grade materials to the highest bidders.

The Soviets have been selling increasing amounts of natural and enriched uranium in Western commercial markets, feeding a downward price spiral that has driven some uranium producers out of business and threatened the uranium enrichment business of America's Energy Department, the world's largest supplier of commercial fuel.

The risk of costly disruptions of the supply of uranium has been greatly increased by growing disorder in the former Soviet Union. Possible Soviet dumping could keep prices low for years, or alternately the supply may suddenly dry up. U.S. action thus offers the potential for stabilizing Western commercial markets.

The Soviet arsenal's explosive power comes from some 500 tons of uranium highly enriched in the isotope U-235 and about 100 tons of plutonium. If diluted with natural uranium, both highly enriched uranium and plutonium can be used in civilian reactors, though most countries prefer fuel not containing plutonium. Under the Strategic Arms Reduction Treaty and new commitments to dismantle tactical and strategic weapons, up to 40 percent of Soviet warhead material will be freed up.

A deal in which the U.S. offered trade credits for purchases of food and other essential goods could be based on the commercial value of the weapons material. The central Government could use these credits in negotiations with the republics to arrange for collecting, dismantling, diluting and exporting material usable for commercial but not arms purposes, and could pay for safeguarding plutonium.

A typical warhead might yield fuel worth \$200,000. Ten thousand warheads containing 200 tons of highly enriched uranium would be worth about \$2 billion. This would be a good deal for the Soviets, for if they tried to sell such a volume commercially, prices would crash.

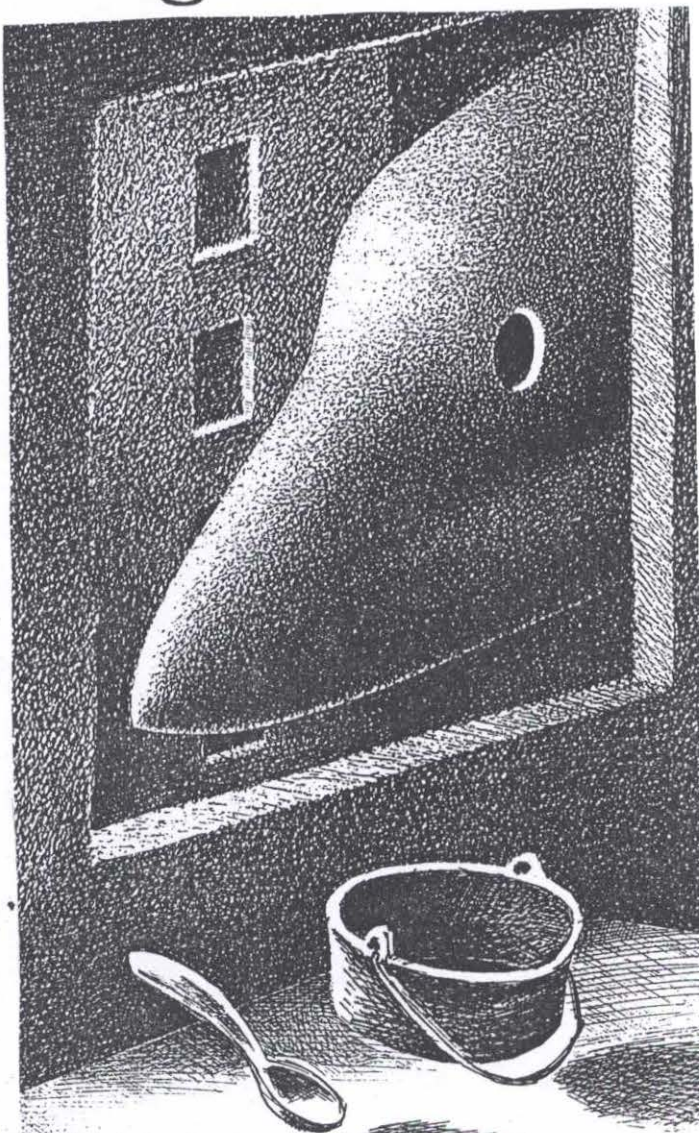
How might the material be accommodated without disrupting Western markets? The Energy Department could use the enriched material to help meet its delivery commitments, saving on its own production costs. It

Buy or barter enriched fuel in Soviet nuclear weapons.

has tried to improve the economics of its enrichment enterprise, largely because of the threat of low-priced Soviet enrichment services.

Substitution of enriched Soviet material would result in larger Energy Department inventories of natural uranium, which potentially is a concern to miners in the West. But it seems better for everyone to accept a gradual buildup of U.S. natural uranium stocks in order to diminish the threat of large volumes of material that might destroy commercial markets and pose a major threat to international security.

It is important for the U.S. and the Soviet Union to be assured that such a transaction would not compromise their security. One solution is for Soviet enterprises to dilute the material down to a level that would make reuse of it for weapons difficult and transport safer. Dismantling weapons could be monitored bilaterally, with subsequent processing, shipment and conversion to reactor fuel in the U.S. safeguarded by the U.N. through the International Atomic Energy Agency.



A U.S.-Soviet agreement on weapons uranium would not just provide economic incentives to dismantle weapons but also would set useful precedents for dealing with the more difficult issue of plutonium stocks and for dismantling additional nuclear weapon systems.

Such an agreement would go far in

satisfying non-weapons states that the superpowers are finally keeping their part of the bargain in the non-proliferation treaty. It would also provide a basis for international involvement in the post-Soviet republics that have nuclear activities, and would justify greater international oversight in other countries.

If the U.S. pursued and the Soviets accepted this grand bargain, the U.S. should accept bilateral monitoring of the dismantling of its own excess weapons and put subsequent processing of material from those weapons under international safeguards. □

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