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RUSSIAN NUCLEAR
WEAPONS



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U.S. Implementation of the
Soviet Nuclear Threat
Reduction Act of 1991

Statement for the Record by Frank C. Conahan,
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Mr. Chairman and Members of the Committee:

This statement for the record discusses the results of our work on the implementation of the Soviet Nuclear Threat Reduction Act of 1991. The act represents an important effort to respond to risks and opportunities presented by the collapse of the Soviet Union. Through the act, the Congress authorized use of \$400 million to facilitate, on a priority basis, the transportation, storage, safeguarding, and destruction of Soviet nuclear, chemical, and other weapons and to help prevent proliferation. In discussions with the Russians after the act was passed, the executive branch has sought to explore options aimed at speeding the pace of Russian nuclear weapons dismantlement.

RESULTS IN BRIEF

As you requested in April 1992, we have analyzed the executive branch's efforts to date to implement the act. On the basis of our work, we would like to share the following observations with your Committee.

-- Progress in implementing the act has not been constrained by a lack of funds. Most of the \$400 million has not yet been tied to specific projects. U.S. executive branch agencies have worked to develop an unprecedented dialogue with Russia--the inheritor of the Soviet nuclear arsenal--concerning the

handling of nuclear weapons. They have overcome various complications and negotiated several agreements to help protect Russian nuclear weapons in transit, help Russia to respond to any nuclear weapons accidents that may occur, and provide containers for transporting and storing nuclear materials. However, these agreements are not directly tied to accelerating the dismantlement of Russian nuclear weapons.

-- Russian officials have sought U.S. help in building a large facility for storing highly enriched weapons-grade uranium and plutonium from dismantled weapons. They have stated that their lack of storage space is the major bottleneck in Russia's dismantlement process. In our view, the Russian request raises numerous questions concerning both the facility and its role in the ultimate disposal of these materials in a way that minimizes the risk that they could be reused for weapons.

PROGRESS TO DATE

By approving the act, the Congress authorized the President to use up to \$400 million¹ in Department of Defense funds to establish and implement a cooperative program to help the Soviet Union's successors (1) destroy nuclear and chemical weapons; (2) transport,

¹The House of Representatives recently voted to increase this funding by \$250 million.

store, disable, and safeguard such weapons in connection with their destruction; and (3) establish safeguards against proliferation. The executive branch, having already initiated talks with the Soviets on nuclear weapons security, assembled an interagency task force to identify requirements and develop projects.

Defining and validating specific act-funded projects has proven to be a challenging task. According to executive branch officials, Soviet officials were initially reluctant to discuss U.S. assistance initiatives in detail. Subsequent discussions with Russian officials have been more open and detailed, and Russian officials have provided documents concerning projects under consideration. However, U.S. efforts have been complicated by shifts in the makeup of the Russian delegations and the often unclear responsibilities and authorities of Russian officials. Moreover, the absence of a market economy has complicated efforts to estimate the dollar cost of items, such as the storage facility, that would be procured or constructed in Russia.

The executive branch has worked hard to overcome such obstacles and has announced plans to obligate up to \$170 million of the act's funds to support

-- several recently concluded agreements with Russia, under which the United States will provide Russia with armored blankets, nuclear emergency response equipment, and fissile material

containers (valued at \$5 million, \$10 million, and \$50 million, respectively);

- a recently initialed agreement to provide \$25 million to a science center in Moscow;
- a recently initialed agreement to provide \$25 million to assist Russian chemical weapons destruction,
- a prospective agreement to provide \$10 million for a science center in Kiev, Ukraine;
- prospective projects involving (1) \$20 million for enhancing the security of Russian railcars for weapons transport and (2) \$15 million for developing material control and accounting systems for Russia and Ukraine; and
- the exploration of options for (1) storing and disposing of nuclear materials and (2) assisting Ukraine and Byelarus (\$10 million).

The recent agreements address several of the act's objectives. For example, the Moscow science center is intended to offer Russian weapons experts alternatives to emigrating to countries of proliferation concern. The chemical weapons agreement--if eventually signed--could be a small but important first step in

promoting the eventual destruction of Russian chemical weapons. The armored blankets, emergency equipment, and railcar security enhancements could facilitate the safe transportation of Russian nuclear weapons and the storage of nuclear materials in connection with the weapon destruction process.

However, as important as these agreements may prove to be in minimizing the dangers posed by terrorists or accidents, none of them are directly tied to the priority destruction of Russian nuclear weapons.

PROPOSED STORAGE FACILITY RAISES ULTIMATE DISPOSITION ISSUE

U.S. officials have told their Russian counterparts that the United States is prepared to consider various forms of assistance to significantly increase Russian dismantlement.² Russian officials, while indicating that they do not need U.S. help in actually dismantling Russia's nuclear weapons, have identified a lack of space for storing the 500 metric tons of weapons-grade uranium and roughly 50 metric tons of plutonium that will be removed from dismantled weapons as the main bottleneck in Russia's dismantlement process. An executive branch working group is considering Russia's

²Russian officials have stated that Russia can dismantle about 1,500 nuclear weapons annually. At that rate, it will take Russia about 10 years to dismantle the 15,000 weapons that it plans to eliminate. However, one Russian atomic energy defense production official has publicly stated that the Russian nuclear complex could dismantle up to 8,000 warheads a year.

request for a large storage facility and is exploring the possibility of a joint U.S-Russian design effort.

In our view, a decision on whether or not to support the facility should be made in the context of a future strategy for minimizing the risk that the stored materials could be reused for weapons by Russia or contribute to proliferation.³ In this light, the Russian request raises numerous complex questions, including the following.

- If the United States supports the long-term storage of weapons materials in Russia for the indefinite future, how can it reduce the risk that these materials could facilitate the rapid nuclear rearming of a future Russian regime? One way that the risk could be reduced would be to "blend down" the weapons-grade uranium to lower enrichment levels before storage. While doing so would add time and expense to the process, it would also result in uranium that would have to be re-enriched before it could be reused for nuclear weapons.

- Should the United States support the sale of Russian weapons-grade uranium, or "blended down" weapons grade uranium, for use as nuclear reactor fuel? Such support could lessen the

³An interagency group is currently studying ultimate disposal, but according to a State Department official, the United States has not yet taken a position on the disposition of Russian weapons-grade uranium and plutonium.

need for a permanent, full-sized storage facility.⁴ Exports of such material could also earn needed hard currency revenues for Russia.⁵ However, to avoid disrupting world uranium markets, the 500 tons of Russian weapons-grade uranium would have to be released in a controlled fashion.⁶ Moreover, importing this material into the United States could raise allegations that dumping is occurring.⁷

-- Should U.S. support for a storage facility be coupled with requirements for verifying that the materials are being properly stored? A strong verification regime would increase assurances that weapons materials are not being diverted for use in weapons in Russia or in any other countries.

-- To what extent can the United States be confident that construction of the facility would accelerate the rate at

⁴Although Russia's 50 metric tons of plutonium could also be fabricated into reactor fuel, such fuel would be more expensive than uranium fuel. Moreover, U.S. nonproliferation policies do not support use of plutonium in civilian reactors.

⁵One private group has estimated the net value of weapons grade uranium, if blended down, to be about \$14,400 per kilogram. If so, 500 metric tons might be worth as much as \$7.2 billion.

⁶Department of Energy officials told us that 500 tons would be sufficient to satisfy world reactor fuel demand for 3 years.

⁷In May 1992 the U.S. Department of Commerce's International Trade Administration issued a preliminary determination that six former Soviet republics are dumping, or are likely to dump, certain uranium products in the United States. For more information on this issue, see our June 1992 report Uranium Enrichment: Unresolved Trade Issues Leave Uncertain Future for U.S. Uranium Industry (GAO/RCED-92-194).

which Russia dismantles its weapons? To ensure that the facility would be effectively used to store materials from dismantled weapons, the United States could condition support for constructing a Russian storage facility to a specific and verifiable dismantlement schedule.

- Could any existing Russian storage facilities be adapted to store the materials from dismantled weapons? To the extent that such facilities could be used for this purpose, the need for a new, large, permanent storage facility would be diminished.

- How will the executive branch control the facility's potential cost in dollars and the expenditure of funds? Estimating dollar costs and controlling expenditures will be difficult in the context of Russia's uncertain transition to a market economy, as evidenced by the wide variations in the initial estimates. For example, in March 1991 Russia indicated that it would need \$150 million in U.S. aid for the facility. It later estimated that the facility would cost about 1.9 billion rubles--less than \$16 million at the commercial ruble-dollar exchange rate. The U.S. Army Corps of Engineers subsequently estimated that such a facility would cost almost \$560 million to build in the United States.

We believe that questions such as these should be addressed before the United States commits to building a large permanent storage facility as the best way of ensuring that the Soviet Union's nuclear legacy will be dismantled as quickly and as safely as possible. The difficult challenge facing the United States is to quickly develop an integrated, long-term policy on the storage and ultimate disposition of fissile materials while taking advantage of what may prove to be an historic opportunity to facilitate the rapid and safe destruction of Soviet weapons.

This concludes our statement for the record.

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