

Concern about an Iranian bomb increased earlier this year when Russia signed a contract to complete the construction of a moribund nuclear power plant at Bushehr in Iran and supply it with several other nuclear facilities, including a gas centrifuge plant that could make highly-enriched uranium. Although Iran is a signatory to the Non-Proliferation Treaty (NPT), Western governments maintain that Iran has a clandestine nuclear weapon program that is about five to 15 years from its goal at its present level of outside assistance.

Although the U.S. government welcomed Russia's decision at the U.S.-Russian Summit on May 10 to drop the supply of the gas centrifuge plant, it wants Russia to cancel the entire agreement. Not only does a power reactor produce large amounts of plutonium that could be misused in a crisis, the agreement represents a more immediate danger whereby Iran could improve its nuclear weapon infrastructure. Iran could also use the deal as a cover to obtain sensitive nuclear technologies, materials, and equipment critical for producing separated plutonium or highly-enriched uranium.

Russia says that the light-water reactor (LWR) it is providing is the same type the United States is promising to North Korea, which, unlike Iran, is in violation of its safeguards agreement under the NPT. This inconsistency in U.S. policy feeds opinions in Russia that the United States is hypocritical and that its real intent is to eliminate Russia's struggling nuclear export industry. Unlike North Korea, however, which has agreed to trade a more capable program for a less capable one, Iran's nuclear weapon efforts can gain much from Russian nuclear cooperation.

Civil nuclear cooperation was misused by Iraq and Pakistan in the 1970s and 1980s when they covertly obtained a wide variety of equipment and know-how for their nuclear weapon programs from Europe, Asia, and the United States. Both countries demonstrated an amazing ability to find suppliers willing to turn a blind eye to the risk posed by an export or, in some cases, willing to violate export control laws.

Iran has attempted, with limited success, to follow a similar procurement strategy in Western Europe. However, more stringent export controls following the Per-

sian Gulf War have stopped many transactions. With weakly enforced export control laws and individuals hungry for business, Russia may be a more fruitful market for centrifuge, plutonium separation, and other nuclear related items.

If Russia will not cancel the deal, it will need to create more stringent conditions on its own industrial enterprises and to insist on greater transparency on Iranian nuclear activities.

**VIEWPOINT:
THE RUSSIAN-IRANIAN
REACTOR DEAL**

by David Albright

ASSESSING THE AGREEMENT

Although Iran consistently denies having nuclear weapons intentions, the United States believes that Iran is pursuing nuclear weapons and that supplier-countries should not provide Iran with nuclear assistance or high-technology items. Secretary of State Warren Christopher gave the clearest statement of the U.S. position about Iran's nuclear weapons ambitions on May 1, 1995, at a State Department press briefing: "Based upon a wide variety of data, we know that since the mid-1980s, Iran has had an organized structure dedicated to acquiring and developing nuclear weapons."¹ He added that in terms of its "organization, programs, procurement, and covert activities, Iran is pursuing the classic route to nuclear weapons which has been followed by almost all states that have recently sought a nuclear capability." Because Iran's industrial infrastructure cannot support a nuclear weapon effort, it must seek important weapon-related equipment and materials overseas.

The secret protocol of Russian-Iranian negotiations, signed on January 8, 1995 by the Russian Minister of Atomic Energy, Victor N. Mikhailov, and Iranian Vice President and President of the Atomic Energy Organization of Iran (AEOI), Reza Amrollahi, contained commitments to a wide variety of nuclear facilities, many of which would dramatically improve Iran's nuclear infrastructure and bring it closer to nuclear weapons. In addition to a LWR, enriched uranium fuel, and training

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in reactor operation, the protocol said that each side will instruct their competent organizations to prepare and sign during the first quarter of 1995 contracts for the supply of a 30 to 50 megawatt thermal light-water research reactor, 2,000 tonnes of natural uranium, and training for 10 to 20 AEOI graduate students and Ph.D.'s annually at Russian academic institutions. The protocol also called for cooperation in building low power research reactors for instructional purposes and for construction of a desalination plant in Iran.

The protocol also instructed both sides within six months to prepare and sign a contract for the construction of a uranium shaft for a mine, after which negotiations will be conducted on the signing of a contract for the construction of a gas centrifuge plant.

Although Russia announced at the Summit the cancellation of the centrifuge plant, it still intends to fulfill the bulk of the other conditions on a delayed schedule.² Russian officials estimated that it would take five years to complete the project and supply the reactor subject to International Atomic Energy Agency (IAEA) safeguards. Already, about 100 to 150 Russian technical and engineering personnel are at the site, and a total of 500 will eventually be there. If the deal goes well, Russia may also finish the other reactor at Bushehr.

Yeltsin said at the Summit that the deal does contain military nuclear components with the "potential for creating weapons-grade fuel" and so "we have decided to exclude those aspects from the contract."³ Clinton and Yeltsin also instructed the Gore-Chernomyrdin Commission, which is expected to meet at the end of June, to sort out which part of the deal relates to peaceful and military purposes and report back to them. Nevertheless, Russian officials express confidence that most of the deal remains intact.

The United States wants Russia to go much further in isolating Iran than just cancelling the nuclear deal. Citing Iran's support for international terrorism and its nuclear weapon program, President Bill Clinton announced on April 30 that the United States would institute a trade embargo on Iran.⁴ This measure is designed to head off stricter measures by Congress, where legislation has been introduced that would not only establish a trade embargo against Iran, but would also punish countries that do business with Iran, including Russia. Needless to say, Russia and most Western allies are not currently expected to join the embargo.

Because Iran's program is at such an early stage, the Russia-Iranian arrangement could be a way for Iran to

gain valuable nuclear facilities and experience, and a cover to seek covert assistance. Russian export controls appear even less effective than those existing in Europe during the 1980s, particularly since its companies and scientists are suffering severe economic hardships. Under the cover of this civil nuclear power deal, Iranian agents may secretly seek aid from nuclear experts, answers to key questions confronting their covert program at training courses and seminars in Russia, and detailed knowledge about Russian companies that supply equipment to sensitive Russian nuclear programs. Iran could find the last type of information invaluable in designing and implementing a covert procurement strategy for key items for its nuclear weapon program.

COURSE OF ACTION

If the risk is so great, shouldn't the United States take stronger action against Russia and other suppliers, perhaps cutting off all U.S. aid or applying sanctions against foreign companies that do business with Iran? Such steps, however, could in fact worsen U.S. chances of stopping Iran's ambitions, and they would also permanently damage U.S.-Russian relations. U.S. national security requires a bilateral relationship with Russia that can reduce the likelihood that fissile material and sensitive items will leak out of the former Soviet Union to other countries, including Iran. This relationship is just starting to produce significant progress in reducing this threat through cooperative efforts such as those in the Nunn-Lugar legislation.

A prudent course of action is for the United States to pursue two tracks. The first track is to continue trying to persuade Russia to stop its nuclear cooperation with Iran. The other one is convincing Russia to require more transparency over nuclear activities in Iran and to create more stringent controls back home that can reduce the risk posed by secret Iranian procurement efforts. Russian officials appear to accept the need for greater transparency in their justification for going through with the agreement. According to Valery Bogdan, General Manager, MINATOM, in an interview in the *Post-Soviet Nuclear and Defense Monitor*: "From the strategic point of view, Iran is a close neighbor to Russia and it is very important for us to know what's going on with their nuclear program. And this is possible only if we conduct joint projects with them."⁵ Russia is well-positioned to create conditions that can reveal undeclared activities early or prevent them in the

first place.

Russian officials have announced Russia's intention to take back the plutonium-laden spent fuel that will be discharged from the LWR reactor.⁶ Each year a 1,000 megawatt electric LWR will discharge several hundred kilograms of plutonium in radioactive spent fuel.⁷ Although an agreement to take back the fuel cannot prevent Iran from diverting plutonium from this reactor to nuclear weapons, it can minimize Iran's plutonium inventory and help ensure that Iran does not have enough plutonium to justify a civilian plutonium separation program.

In addition to this condition, Russia needs to do more to minimize the chance that Iran will misuse this cooperation:

1) Russia now appears to agree with the West that Iran should not be allowed to have a uranium enrichment or a plutonium separation program. A policy that denies reprocessing and uranium enrichment to developing nations in regions of proliferation concern is fundamental to many multilateral nonproliferation efforts despite the NPT's promise of supply. Russia should declare that evidence of an Iranian reprocessing or enrichment program would lead to a suspension of its agreement.

(2) Russia should insist that Iran immediately permit the IAEA to institute new, more intrusive inspection arrangements that would provide far earlier warning of undeclared nuclear efforts. The IAEA has developed a wide range of new safeguards techniques following the Gulf War, and is ready to begin implementing them worldwide, but the implementation process is expected to occur slowly. These techniques include expanded state declarations of nuclear and nuclear-related activities, including locations and types of equipment used, even if no nuclear material is located there. The IAEA would also have very broad access both within and outside facilities, at short or no notice. Another major innovation is environmental monitoring near suspect sites.

(3) Russia will need to control carefully Iranian contacts with its own nuclear establishment and insist that its own companies, suppliers, and experts report any suspicious Iranian approach for assistance to authorities. If only a small fraction of the European companies contacted by Iraqi and Pakistani agents had acted suspiciously toward them, these companies could have dramatically complicated Pakistan's and Iraq's procurement efforts. Instead, European com-

panies greeted these procurement efforts as opportunities to boost profits, and did not adequately check the end use or, in some cases believed that contributing to a uranium enrichment or plutonium separation program was a legitimate contribution to a civil nuclear program.

IRAN'S INTEREST IN ACCEPTING STRINGENT CONDITIONS

If Iran's intentions are truly peaceful, it should be willing to accept these conditions. Although it may protest that it has the right to civilian nuclear technology as a member of the NPT, it must realize that suppliers under newer nonproliferation commitments, such as those of the Nuclear Suppliers Group, can deny exports which appear legitimate under the NPT but are nevertheless judged to be too dangerous. If the export goes ahead anyway, the supplier is also justified in insisting upon additional conditions before the export occurs.

¹ Office of the Spokesman, "Press Briefing by Secretary of State Warren Christopher on the President's Executive Order on Iran," U.S. Department of State, May 1, 1995.

² Office of the Press Secretary at the White House, "Remarks by President Clinton and President Yeltsin in a Joint Press Conference," Press Conference Hall, Moscow, Russia, May 10, 1995.

³ "Remarks by President Clinton and President Yeltsin in a Joint Press Conference," *loc. cit.*

⁴ Office of the Press Secretary, the White House, "Remarks by the President at World Jewish Congress Dinner," Waldorf-Astoria Hotel, New York, New York, April 30, 1995.

⁵ Interview with Valery Bogdan, MINATOM, "On the Reactor Sale to Iran, Nunn-Lugar, Other U.S.-Russian Nuclear Matters," *Post-Soviet Nuclear and Defense Monitor*, Vol. 2, May 16, 1995, pp. 6-9.

⁶ Bogdan interview, *loc. cit.*

⁷ David Albright, Frans Berkhout, and William Walker, *World Inventory of Plutonium and Highly Enriched Uranium 1992* (London: SIPRI-Oxford University Press, 1993).