

CRITICAL QUESTIONS

The Treaty on the Non-Proliferation of Nuclear Weapons

Jenifer Mackby

January 29, 2008

Q1: What are the key provisions of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT)?

A1: The NPT is considered the cornerstone of the nonproliferation regime and, with 190 states, is the most accepted arms control agreement. Signed in 1968, it obliges the five declared nuclear weapon states (China, France, the Russian Federation, the United Kingdom, and the United States) not to transfer nuclear weapons, other nuclear explosive devices, or their technology to any nonnuclear weapon state. Nonnuclear weapon states are not to acquire or produce nuclear weapons or nuclear explosive devices. Each nonnuclear weapon state is obliged to accept safeguards under the International Atomic Energy Agency (IAEA) to prevent diversion of nuclear energy from peaceful uses to nuclear weapons or other nuclear explosive devices. The safeguards agreement stipulates that nuclear materials in peaceful civil facilities are to be declared to the IAEA, which may inspect the facilities routinely.

Under article IV, parties to the treaty have the right to develop research, production, and use of nuclear energy for peaceful purposes. Parties are to participate in the exchange of equipment, materials, and technological information for the peaceful uses of nuclear energy, with consideration for the needs of developing countries. One of the most contentious provisions, contained in article VI of the treaty, obliges parties to pursue negotiations on the cessation of the nuclear arms race and nuclear disarmament.

Many nonnuclear weapon states contend that they consider articles IV and VI to be an exchange for their not developing nuclear weapons. Some states believe that article IV provides an ambiguity because nonnuclear weapon states can develop nuclear technology that can also have military uses, like uranium enrichment and plutonium reprocessing, even with IAEA safeguards agreements in place.

Nonmembers of the NPT include India, Israel, and Pakistan; North Korea withdrew from the treaty in 2003, and negotiations are continuing about its nuclear status.

Q2: What role does the IAEA play in the NPT?

A2: The IAEA aims to assist research, development, and application of atomic energy for peaceful uses. As the verification authority for the NPT, the agency inspects nuclear and related facilities under safeguards agreements with more than 140 states. Under the agreements, IAEA inspectors work to verify that safeguarded nuclear material and activities are not used for military purposes. Verification measures include on-site inspections, visits, and ongoing monitoring and evaluation. Safeguards are based on verifying the assessments of the correctness and completeness of a state's declared nuclear material and nuclear-related activities. The safeguards can include auditing the records of accounting and operations at a facility; verifying the inventory of nuclear material; taking environmental samples; and containment and surveillance techniques, such as tamper-proof seals and cameras installed at facilities by the IAEA.

A recently concluded "additional protocol" is a legal document complementing comprehensive safeguards agreements. Under this protocol, the IAEA verifies the non-diversion of declared nuclear material and provides assurances about the absence of undeclared nuclear material and activities in a state. The IAEA is granted expanded rights of access to information and sites. For example, the state must provide information about and allow IAEA inspectors access to all parts of a state's nuclear fuel cycle, including uranium mines, fuel fabrication and enrichment plants, and nuclear waste sites, as well as to any other location where nuclear material is or may be present. The IAEA has the right to use satellite systems and other forms of

CRITICAL QUESTIONS

telecommunication to obtain information on the manufacture and export of sensitive nuclear-related technologies.

Q3: Is the NPT up to the task of deterring nuclear terrorism in the twenty-first century, or is it time for a new framework?

A3: When the NPT was concluded in 1968 it was aimed at preventing the spread of nuclear weapons to nations, as the fear of terrorists had not surfaced as an urgent concern. With the breakup of the Soviet Union and resulting fears of insecure nuclear materials; the development of concerns after the events of 9/11; and the revelations of activities of Abdul Qadeer Khan, al Qaeda, and other terrorist groups, the possibility of terrorists acquiring nuclear materials or weapons has become a deep-rooted fear.

Recent initiatives directed at addressing these concerns include: the additional protocol to the NPT; the Proliferation Security Initiative; the G-8 Global Partnership Against the Spread of Weapons and Materials of Mass Destruction; the Global Nuclear Energy Partnership; UN Security Council Resolution 1540; and others. Two entities connected to the NPT include the Nuclear Suppliers Group, a group of nuclear supplier countries that aim to prevent the proliferation of nuclear weapons by implementing guidelines on nuclear-related exports, and the Zangger Committee, which aims to harmonize the interpretation of nuclear export control activities for the parties to the NPT. The Zangger Committee maintains a trigger list of nuclear-related strategic goods to assist NPT parties in identifying equipment and materials subject to export controls. The Nuclear Suppliers Group guidelines were published in 1978 as an IAEA document to ensure that nuclear transfers for peaceful purposes would not be diverted to unsafeguarded nuclear fuel cycle or nuclear explosive activities. The Nuclear Suppliers Group and the Zangger Committee could strengthen their guidelines to identify key components of nuclear technology and prevent information from reaching countries of concern. Together, the initiatives above assist in forming a layered defense against nuclear proliferation and terrorism.

Jenifer Mackby is a fellow in the International Security Program at the Center for Strategic and International Studies in Washington, D.C.

Critical Questions is produced by the Center for Strategic and International Studies (CSIS), a private, tax-exempt institution focusing on international public policy issues. Its research is nonpartisan and nonproprietary. CSIS does not take specific policy positions. Accordingly, all views, positions, and conclusions expressed in this publication should be understood to be solely those of the author(s).

© 2008 by the Center for Strategic and International Studies. All rights reserved.