

# CRS Report for Congress

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## **The Nuclear Nonproliferation Treaty Review Conference: Issues for Congress**

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Sharon Squassoni  
Specialist in National Defense  
Foreign Affairs, Defense, and Trade Division

Carl E. Behrens  
Specialist in Energy Policy  
Resources, Science, and Industry Division

# The Nuclear Nonproliferation Treaty Review Conference: Issues for Congress

## Summary

Member states of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) will meet in New York from May 2 through May 27, 2005, to review treaty implementation. These Review Conferences have taken place every five years since the treaty entered into force in 1970. The NPT was designed to:

- prevent the spread of nuclear weapons (Articles I, II);
- provide assurance, through international safeguards, that the peaceful nuclear activities of non-nuclear weapon states are not diverted to making nuclear weapons (Article III);
- promote, to the maximum extent consistent with the other purposes of the treaty, the peaceful uses of nuclear energy through full cooperation (Article IV);
- express the determination of the parties that the treaty should lead to further progress in comprehensive arms control and nuclear disarmament (Article VI)

In recent years, several developments have led many to believe that the nuclear nonproliferation regime needs to be strengthened: the discovery of the A.Q. Khan nuclear black market network, Iran's unreported nuclear activities, including secret uranium enrichment facilities, the withdrawal of North Korea from the NPT in April 2003, and the discovery of Libya's covert nuclear weapons program, renounced in December 2003. Brazilian Ambassador Sergio Duarte, who will chair the May Review Conference, suggested that the main difficulty facing the review conference will be how to balance a perceived need for greater controls with treaty provisions that ensure the right to peaceful applications of nuclear technology. While the conference is unlikely to make specific recommendations, it will likely discuss some proposals to strengthen the regime, including those from President Bush and the International Atomic Energy Agency (IAEA) Director General Mohamed ElBaradei.

Developments in the last two years in the nuclear programs of Iran, North Korea and Libya have been keenly watched Congress, as well as by the rest of the world. Recent congressional actions — whether resolutions, funding legislation, and nonproliferation sanctions — have played a role in U.S. nonproliferation policy, and, ultimately, bear on the success of the NPT and the nonproliferation regime. Those actions affect the U.S. record in nuclear disarmament, progress in diminishing the threat of terrorist access to nuclear weapons, and responses to the non-compliance of countries like Iran, Libya, and North Korea.

Members of Congress have attended review conferences in the past. The May conference may be relevant to some pending legislation in the 109<sup>th</sup> Congress — for example, H.Con.Res. 133, the Nonproliferation Treaty Enhancement Resolution of 2005, H.R. 665, the Omnibus Nonproliferation and Anti-Nuclear Terrorism Act of 2005, and H.R. 422, the 9-11 Commission Combating Proliferation Implementation Act. This report will not be updated.

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# The Nuclear Nonproliferation Treaty Review Conference: Issues for Congress

## Introduction

The Nuclear Nonproliferation Treaty (NPT) is the foundation of international efforts to prevent the spread of nuclear weapons. The treaty, which entered into force in 1970, had an initial life-span of twenty-five years. In 1995, parties to the treaty voted to extend its duration indefinitely. At the same time, they decided to strengthen the process by which they review the treaty's implementation. Every five years NPT parties hold a Review Conference to discuss treaty implementation. The seventh Review Conference will be held at the United Nations in New York from May 2 to May 27, 2005.<sup>1</sup>

## Background

### NPT: Why and How

It took just three months after the bombing of Hiroshima and Nagasaki in 1945 for the first proposals to emerge from governments to control the “destructive uses” of nuclear energy. It took 25 years, however, for the NPT to emerge as the blueprint for nuclear nonproliferation.<sup>2</sup> In 1968, the treaty demarcated nuclear-weapon-states from non-nuclear-weapon states by defining nuclear-weapon states as those states that have manufactured and exploded a nuclear weapon or other nuclear explosive device prior to January 1, 1967. This definition implied that there would only ever be five “legitimate” nuclear-weapon-states (NWS) — the United States, Russia, Great Britain, France, and China. All other states would join as non-nuclear weapon-states, agreeing not to acquire nuclear weapons in exchange for assistance in the peaceful uses of nuclear energy. There are, at present, 187 parties to the NPT, including all five nuclear weapons states. Only four nations in the world are not members of the NPT: India, Pakistan, Israel, and North Korea, which signed the

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<sup>1</sup> For background reference material, see Claire Applegarth and Rhianna Tyson, “Major Proposals to Strengthen the Nuclear Nonproliferation Treaty: A Resource Guide,” April 5, 2005, published by the Arms Control Association. That guide also contains the text of the treaty.

<sup>2</sup> Previous proposals included a 1945 proposal by the United States, Britain, and Canada proposed to establish a U.N. Atomic Energy Commission to eliminate “the use of atomic energy for destructive purposes,” a 1957 “package” of measures (from Canada, UK, France, and United States) to the U.N. Disarmament Commission that included a commitment not to transfer nuclear weapons, a 1964 program proposed by the United States for nonproliferation. See *Arms Control and Disarmament Agreements: Texts and Histories of the Negotiations*, 1990 edition, U.S. Arms Control and Disarmament Agency, p. 89.

treaty in 1985, was never fully in compliance, and withdrew from the treaty officially in April 2003.<sup>3</sup>

The basic provisions of the treaty are to:

- prevent the spread of nuclear weapons (Articles I, II);
- provide assurance, through international safeguards, that the peaceful nuclear activities of non-nuclear weapon states are not diverted to making nuclear weapons (Article III);
- promote, to the maximum extent consistent with the other purposes of the treaty, the peaceful uses of nuclear energy through full cooperation (Article IV);
- express the determination of the parties that the treaty should lead to further progress in comprehensive arms control and nuclear disarmament (Article VI).

The pledge not to acquire nuclear weapons is verified through the application of “nuclear safeguards” measures. The International Atomic Energy Agency (IAEA), founded in 1957, devised a system of nuclear material accounting coupled with periodic and special inspections to ensure that nuclear material is not diverted from peaceful uses to military uses. Each non-nuclear-weapon state party to the NPT must negotiate an agreement with the IAEA to submit all nuclear material in its possession to regular inspections.<sup>4</sup> Following revelations in 1991 that Iraq had pursued a clandestine nuclear weapons program while under inspections, the IAEA launched a major effort to strengthen its safeguards system, which was formalized in what has become known as the Additional Protocol. The Additional Protocol calls for enhanced declarations of nuclear activities and site access for inspectors. It is not mandatory, although recent events, described below, have led many observers to call for the Additional Protocol to be the new safeguards benchmark. The United States signed its Additional Protocol with the IAEA in 1998, and the Senate consented to ratification in 2004, but entry into force awaits executive branch action. Iran signed an additional protocol in December 2003, but has not yet ratified it.

The NPT rests on a few critical assumptions and incentives. The non-nuclear-weapon states gave up their right to pursue nuclear weapons, assuming that one day, the nuclear weapon states would give up their own nuclear weapons. The non-nuclear-weapon-states agree to mandatory inspections of all their nuclear activities in exchange for a promise by advanced nuclear countries to promote “the fullest possible exchange of equipment, materials and scientific and technological

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<sup>3</sup> North Korea’s status is debated by some observers because it apparently did not completely follow procedures in withdrawing from the treaty. However, it has not been under any IAEA inspections since December 2002.

<sup>4</sup> These agreements are called “full-scope safeguards.” Other states have partial safeguards agreements, including India, Pakistan and Israel, which can either apply to material or facilities. All of the five nuclear weapon states have voluntary safeguards agreements, which cover a portion of facilities and materials.

information for the peaceful uses of nuclear energy.”<sup>5</sup> The nuclear-weapon-states also agree to “pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament....”<sup>6</sup>

A key issue at the 2005 Review Conference is likely to be interpretation of Article IV’s “inalienable right of all the Parties to the Treaty to develop research, production and use of nuclear energy for peaceful purposes without discrimination and in conformity with articles I and II of this Treaty.” Some observers have been calling this the NPT’s Article IV “loophole” because it allows the non-nuclear-weapon states to pursue technologies (under safeguards) like uranium enrichment and plutonium reprocessing that also have military uses. Iran, for one, has claimed that its uranium enrichment capabilities are for peaceful purposes, but there are many who believe that Iran may also intend to enrich uranium for weapons.<sup>7</sup>

The distinction between nuclear-weapon states and non-nuclear weapon states has tended to lead the two groups to place different priorities on treaty implementation, which has been apparent in past NPT Review Conferences. The nuclear weapon states are concerned primarily with protections designed to insure that non-nuclear weapon states do not develop nuclear weapons (“nuclear safeguards”), while the non-nuclear weapon states typically complain that the nuclear weapons states, particularly the United States and Russia, are not pursuing nuclear disarmament. The conference is likely to display a similar pattern, but the world situation has changed radically in the five years since the last conference. Issues to be discussed are likely to be much more focused and specific to proliferation prevention measures than usual. At the same time, impatience with weapons states’ perceived foot-dragging on disarmament is likely to be sharpened by the demands for more stringent safeguards.

## Other Components of the Nonproliferation Regime

The NPT is just one component of the nonproliferation regime; its success relies on a variety of positive and negative incentives intended to prevent states from acquiring nuclear weapons. Positive incentives include security alliances and “negative security assurances” — pledges by the nuclear weapon states not to attack non-nuclear weapon states with nuclear weapons. Negative incentives include technology denial through national export controls, multilateral export controls under the Nuclear Suppliers’ Group and interdiction efforts under the Proliferation Security Initiative.<sup>8</sup> Nonproliferation assistance programs like cooperative threat reduction

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<sup>5</sup> NPT, Article IV-2.

<sup>6</sup> NPT, Article VI.

<sup>7</sup> Uranium can be used in its natural or enriched (enriched in U-235 isotope) form as fuel for nuclear power or research reactors, but if enriched to high levels (90% or more U-235), it is useful in a nuclear weapon. Plutonium is produced in nuclear reactors as a part of the fission process. Extracted from spent nuclear fuel, it can be used either for nuclear explosives or as fuel for reactors.

<sup>8</sup> See CRS Report RS21881, *Proliferation Security Initiative*. President Bush proposed PSI (continued...)

are, at their core, a mix of positive and negative incentives. For the state receiving the assistance, there are some positive incentives for their personnel and facilities not to proliferate nuclear technology elsewhere. For states or terrorists seeking those sensitive materials and technologies, those programs are intended as a negative incentive because they secure loose materials, equipment, and technology at the source.<sup>9</sup> Another kind of negative incentive is sanctions — a cutoff in U.S. aid, economic assistance, military cooperation, and technology access to countries and individuals.

## Events Since Last Conference

The terrorist attacks of September 11, 2001 sharpened world focus on nuclear proliferation and the risk that terrorists might gain access to nuclear (and other weapons of mass destruction) technology. More states now are convinced that greater attention should be devoted to nuclear security. On the other hand, the Administration's charge that Iraq was developing weapons of mass destruction (including reconstituting its nuclear program) and the conclusion of the Iraq Survey Group after the 2003 war that no programs were reconstituted (save missiles), has cast doubt on, among other things, the U.S. ability to detect WMD threats.<sup>10</sup> At the same time, several specific events have also affected the proliferation climate:

- The discovery of Pakistani scientist A. Q. Khan's sales of uranium enrichment technology, equipment, and a bomb design to Iran, North Korea, Libya, and possibly other states;
- Intensified inspections in 2003 and 2004 in that Iran revealed a clandestine enrichment program and other undeclared activities, despite inspections by the International Atomic Energy Agency (IAEA);
- North Korea's April 2003 withdrawal from the NPT following U.S. claims that it was pursuing uranium enrichment and the subsequent collapse of the 1994 Agreed Framework between the United States and North Korea (under which North Korea would abandon its weapons activities in exchange for nuclear power technology and equipment);

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<sup>8</sup> (...continued)

in May 2003 as a way of achieving collaborating existing efforts to interdict shipments of weapons of mass destruction-related items and of expanding upon those efforts. Initial membership was 11 states (core states), which then expanded to 16. The Administration says that more than 60 members now support PSI.

<sup>9</sup> See CRS Report RL31957, *Nonproliferation and Threat Reduction Assistance: U.S. Programs in the Former Soviet Union*.

<sup>10</sup> See *Report of the Commission on the Intelligence Capabilities of the United States Regarding Weapons of Mass Destruction*, available on-line at [<http://www.wmd.gov/report/index.html>].

- Libya's announced abandonment in 2003 of a covert weapons program based on technology obtained from the Khan operation.

These events point to failures in the NPT and related export control systems. Khan might have been able to conduct his sales even if Pakistan had joined the NPT, but it would have been much harder, according to some observers. The case of Iran points, for some observers, to the need to restrict dual-use technologies that can be used for peaceful and military purposes. North Korea's withdrawal from the NPT and weapons activities, notably its declaration in February 2005 that it has nuclear weapons, argue for creating stricter NPT withdrawal penalties. Libya's program has led still others to place priority on intelligence and interdiction. These issues likely will be discussed, although few observers believe they will be resolved, at the May Review Conference.

Many observers view several developments in U.S. nuclear and security policy as potentially harmful to the NPT because they raise questions about continued U.S. support for its nuclear disarmament commitments. The Administration released the results of its Nuclear Posture Review in early 2002. This review stated that the United States would reduce its reliance on nuclear weapons, but that nuclear weapons would remain important to U.S. national security for the foreseeable future. Many observers focused on the Administration's intention to maintain and enhance its forces, along with its support for research into new types of nuclear weapons.<sup>11</sup> The Administration contends that these programs will enhance deterrence and reduce the likelihood of nuclear use, but critics argue that they might, instead, reduce the nuclear threshold and blur the distinction between nuclear and conventional weapons. In addition, some argue that the Administration, by highlighting the need for new or modified nuclear weapons to enhance its own security, has undermined the U.S. ability to convince other nations to forgo nuclear weapons. Administration officials continue to support a nuclear testing moratorium, but will not support the ratification of the Comprehensive Test Ban Treaty (which President Clinton signed, but the Senate rejected). The Administration does not view its withdrawal from the Anti-Ballistic Missile Treaty in 2002 as a negative factor in disarmament, but viewed the treaty as a Cold War anachronism. According to the State Department, "Our withdrawal from the ABM Treaty opened new opportunities for cooperation in missile defense with Russia and other friends and allies that would not have been possible under that Treaty."<sup>12</sup> As for irreversible reductions in its offensive nuclear forces, the Administration has stressed that it has been able to achieve significant reductions quickly.

Brazilian Ambassador Sergio Duarte, chair of the 2005 Review Conference, suggested in an interview in November 2004 that the main difficulty facing the conference will be "how to balance a perceived need for greater controls or more effective instruments of safeguards and controls with treaty provisions that ensure the

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<sup>11</sup> See CRS Report RL32347, *Robust Nuclear Earth Penetrator Budget Request and Plan, FY2005- FY2010*.

<sup>12</sup> "The Arms Control Philosophy and Accomplishments of the Bush Administration," Bureau of Arms Control, U.S. Department of State, Feb. 11, 2004 at [<http://www.state.gov/t/ac/rls/or/42200.htm>].



right to peaceful applications of nuclear technology.”<sup>13</sup> In an informal meeting, Ambassador Duarte suggested that the conference would not likely recommend particular instruments or controls.

## Compliance Issues

There have always been critics of the NPT and its safeguards regime who claimed that states could formally meet the safeguards requirements of the IAEA while pursuing a nuclear weapons capability. After the discovery of Iraq’s secret weapons program in 1991, measures were proposed to strengthen IAEA’s inspection rights and procedures. These measures were formalized in an “Additional Protocol” to be concluded between IAEA and individual countries. The Additional Protocol was designed to expand the range of information available to the IAEA and access to sites. In this way, it was hoped that states would find it harder to conceal activities than before.

Iran did not sign an Additional Protocol until 2003 (and still has not ratified it), so it is difficult to tell whether or not the Additional Protocol would have helped the IAEA detect Iran’s clandestine enrichment and other activities. Nonetheless, some observers believe that no amount of verification is enough, and that non-nuclear-weapon states should not have sensitive uranium enrichment and plutonium reprocessing capabilities that could be diverted for weapons purposes.<sup>14</sup> In contrast, others believe that safeguards and export controls are sufficient to help deter and detect violations. The case of Iran is particularly acute because the United States persuaded most other states not to engage in cooperation with Iran, even if it was permitted under the NPT (except Russia, which has insisted on the right to supply Iran with the Bushehr nuclear power reactor). A.Q. Khan’s activities, however, demonstrated that sophisticated nuclear technology could be sold by an individual (or country, depending on whether the Pakistani government was involved) residing in a country not in the Nuclear Suppliers’ Group.

The basic bargain of the NPT written in Articles II and IV — that non-nuclear weapon states foreswear nuclear weapons in exchange for the inalienable right to the peaceful uses of nuclear technology and an expectation of “the fullest possible exchange” of such technology among all states — may now be in question. There have been proposals to strengthen export controls, ban some technology sales altogether, and encourage some states to foreswear uranium and enrichment technology. President Bush made several proposals in February 2004 in direct response to the Khan affair, described below. In June 2004, the G-8 countries agreed to ban sales of enrichment and reprocessing technology to those states that do not

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<sup>13</sup> “Balancing Nonproliferation and Disarmament: An Interview With Brazilian Ambassador and NPT Review Conference President Sergio do Queiroz Duarte,” *Arms Control Today*, Nov. 2004.

<sup>14</sup> Traditional nonproliferation experts hold that enrichment and reprocessing represent a larger hurdle than weaponization because of the substantial industrial engineering and technical artistry that some processes require.

already have full-scale enrichment and reprocessing plants.<sup>15</sup> The United States and the European Union made a similar declaration in June 2004 that included a halt in new nuclear cooperation on enrichment and reprocessing. The Director General of the International Atomic Energy Agency (IAEA), Mohamed ElBaradei, put forth several proposals to strengthen the regime in 2004 and 2005 (described below) and convened a working group on fuel cycle issues that reported on its results in February 2005 (also described below). Some of these proposals may be considered at the 2005 Review Conference.

## Proposals to Strengthen Compliance

**U.S. proposals.** In a speech at the National Defense University, President Bush proposed expanding the Proliferation Security Initiative (PSI) to address more than shipments and transfers, to include “shutting down facilities, seizing materials, and freezing assets.”<sup>16</sup> He also proposed encouraging states to renounce uranium enrichment and plutonium reprocessing by ensuring reliable access, at reasonable cost, to fuel for civilian nuclear reactors. A third proposal was to make Nuclear Suppliers’ Group (NSG) enrichment and reprocessing-related nuclear exports available only to those states that already have a fully operational capability. Currently, NSG member states agree to restrict nuclear exports to only those states with comprehensive nuclear safeguards agreements.<sup>17</sup> President Bush also proposed making the Additional Protocol a prerequisite for any nuclear imports; creating a special committee of the IAEA Board of Governors for safeguards and verification; and disqualifying any state that is currently under investigation for violating nuclear safeguards obligations from serving on the IAEA Board.

Some of President Bush’s proposals have been implemented in the last year. For example, President Bush’s proposed UN Security Council resolution requiring all states “to criminalize proliferation, enact strict export controls and secure all sensitive materials within their borders,” UNSCR 1540, was adopted on April 28, 2004. Expanding cooperative threat reduction programs beyond the former Soviet Union is being done unilaterally by the United States (through the State Department’s Nonproliferation and Disarmament Fund), and was endorsed in principle by the G-8 in 2002 in their Global Partnership Against the Spread of Weapons and Materials of Mass Destruction. President Bush also emphasized ending the use of highly enriched uranium in research reactors, which the U.S. has been pursuing through the Reduced Enrichment for Research and Test Reactors (RERTR) program.<sup>18</sup>

Some of the President’s proposals may be difficult to implement. Administration officials have said privately that they have not yet addressed how to

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<sup>15</sup> *G-8 Action Plan on Nonproliferation*, Sea Island Summit, Georgia, June 2004. See [<http://www.g8.utoronto.ca/summit/2004seaisland/>].

<sup>16</sup> See CRS Report RS21881, *Proliferation Security Initiative*.

<sup>17</sup> See CRS Report RL31559, *Proliferation Control Regimes: Background and Status* for more detail.

<sup>18</sup> U.S. Department of Energy, “Audit Report: Recovery of Highly Enriched Uranium Provided to Foreign Countries,” DOE/IG-0638, Feb. 2004.

expand PSI. The proposals to establish a special committee of the IAEA Board of Governors for safeguards and verification and to disqualify any state that is currently under investigation for violating nuclear safeguards obligations from serving on the IAEA Board could require amending the IAEA Statute, which could prove to be politically difficult.

The two proposals related to restricting enrichment and reprocessing technology — getting countries to renounce enrichment and reprocessing in return for guarantees of nuclear fuel, and restricting any such exports from NSG members to states that already have such technology — are perhaps the most far-reaching. As the President described it, restricting enrichment and reprocessing to states that already have a full-scale operational capability would “close a loophole” in the NPT. However, the details have not been presented. For example, how would full-scale, functioning enrichment and reprocessing be defined? Would Brazil’s enrichment programs be included? Also, how would enrichment- and reprocessing-related activities and technologies be treated?

**IAEA proposals.** Following President Bush’s speech, the Director General of the IAEA, Mohamed ElBaradei, presented his own case for responding to the Khan network.<sup>19</sup> ElBaradei suggested the following:

- universalizing the export control system and enacting “binding, treaty-based controls;”
- universal adherence to the Additional Protocol;
- amending the NPT so that the provision allowing states to withdraw is removed or at least that withdrawal should prompt an automatic review by the Security Council;
- bringing sensitive aspects of the nuclear fuel cycle under multinational control;
- beginning negotiations on a fissile material production cutoff treaty (FMCT);
- renewing the commitments of the five nuclear weapon states to move toward disarmament, particularly by making the U.S.-Russian strategic nuclear cuts verifiable and irreversible and;
- bringing into force the Comprehensive Test Ban Treaty.

ElBaradei’s proposals included at least two measures absent in President Bush’s proposals that pertained particularly to the disarmament side of the NPT. The first was negotiating a fissile material production cutoff treaty (FMCT). Such a treaty would seek to end the production of fissile material (enriched uranium and plutonium) for use in nuclear weapons. The Bush Administration finished a review of FMCT in July 2004 and stated that it supported FMCT negotiations in the Conference on Disarmament, but that the treaty was inherently unverifiable. ElBaradei also called for renewing the commitments of the five nuclear weapon states to disarmament. While the Bush Administration is unlikely to oppose this, it is unlikely to agree with ElBaradei’s imperative to make U.S.-Russian strategic

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<sup>19</sup> Mohamed ElBaradei, “Saving Ourselves from Self-Destruction,” *New York Times*, Feb. 12, 2004.

nuclear cuts verifiable and irreversible, or with bringing the Comprehensive Test Ban Treaty into force.

In the months that followed, ElBaradei elaborated on some of these ideas and proposed others.<sup>20</sup> ElBaradei called for further implementation of UNSCR 1540, which calls upon nations to criminalize proliferation activities. In the area of export controls, many believe that expanding participation in the export control system is clearly needed, but raises the question of costs. The United States has provided considerable export control assistance to key countries for nonproliferation purposes over the last decade; some of that assistance has been diplomatic, legal, educational, and technical. With respect to “binding, treaty-based” export controls, this could be a significant change from the current multilateral, voluntary export controls.

Ensuring universality of the Additional Protocol is fairly uncontroversial, but amending the NPT to remove the provision for withdrawal could be fairly complex and somewhat unorthodox in international arms control law. Most arms control treaties have a provision for states to withdraw, but even when they don’t, under international law there are ways for states to withdraw nonetheless from treaties. In addition, the process of amendment could be difficult and politically divisive, and could potentially open the door to amending other parts of the treaty, which may be undesirable.

In the area of restricting the nuclear fuel cycle, ElBaradei has called for a five-year moratorium on all new enrichment and reprocessing plant construction and conversion of reactors using highly enriched uranium to low-enriched uranium (HEU to LEU). He convened an experts’ group to consider placing sensitive aspects of the nuclear fuel cycle under international management, which reported five options to the IAEA in March 2005:

- Use of fuel leasing options and fuel take-back agreements to reinforce commercial market mechanisms on a case-by-case basis;
- International system of guaranteed nuclear fuel supply, with IAEA participation;
- Voluntary conversion of existing facilities to multilateral nuclear supply sources;
- Creation of joint ownership agreements for new facilities;
- Stronger multilateral arrangements and broad cooperation, with IAEA involvement, if nuclear energy further expands.<sup>21</sup>

The Expert Group’s report notes that multilateral approaches may hold some nonproliferation and economic benefits but acknowledges that differing levels of technological sophistication, economic development, and resources among relevant states may present certain challenges and disincentives.

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<sup>20</sup> Mohamed ElBaradei, “Seven Steps to Raise World Security,” *Financial Times*, Feb. 2, 2005.

<sup>21</sup> *Multilateral Approaches to the Nuclear Fuel Cycle: Expert Group Report submitted to the Director General of the International Atomic Energy Agency*, INFCIRC/640, Feb. 22, 2005.

## Disarmament Issues

In the 1995 Review Conference, the parties agreed to extend the duration of the treaty indefinitely, and produced a set of principles and objectives to help strengthen the regime. These included universality, nuclear disarmament, nuclear-weapon-free zones, and security assurances, as well as the inalienable right of parties to develop nuclear energy for peaceful purposes, among others. At the 2000 NPT Review Conference, state parties agreed on “13 Practical Steps” to meet their Article VI commitments toward disarmament. The 13 Steps included the following principles:

- **Nuclear testing:** early entry-into-force of the CTBT and a test moratorium in the interim;
- **Conference on Disarmament:** creation of a subsidiary body to deal with nuclear disarmament and immediate negotiations on a nondiscriminatory, multilateral, and effectively verifiable fissile material production cutoff treaty (FMCT);
- **Commitment to disarmament:** reaffirmation of the objective of general and complete disarmament and an “unequivocal” undertaking by NWS to eliminate their nuclear arsenals;
- **U.S.-Russian arms control:** early entry-into-force of START II, conclusion of START III, and the preservation and strengthening of the Anti-Ballistic Missile Treaty; completion of the Trilateral Initiative between the United States, Russia and the IAEA<sup>22</sup>;
- **Additional steps toward disarmament:** unilateral reductions, transparency, reductions in nonstrategic nuclear weapons, reduced operational readiness and reduced role of nuclear weapons;
- **Verification:** IAEA or international verification of fissile material that is excess to defense needs; application of the principle of irreversibility to apply to all nuclear disarmament and reduction measures; and development of verification capabilities to ensure compliance with nuclear disarmament agreements;
- **Reporting:** regular state reporting in the NPT review process on Article VI implementation.

The Bush Administration adopted policies after taking office in 2001 that either disavowed some of these steps or took action that could be seen as making them irrelevant. In 2002, the United States made clear it did not support all of the 13 steps.<sup>23</sup> Although it was the Senate that rejected the CTBT, the Bush Administration stated it would not submit the treaty to the Senate again, although it supports a continued moratorium on nuclear testing. The Administration did not publicly support the FMCT negotiations until 2004, and then it did not support verification measures for the treaty. With respect to the ABM Treaty, the Administration has

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<sup>22</sup> See CRS Report RL30033, *Arms Control and Nonproliferation Activities: A Catalog of Recent Events*, for a description of START II and III and the Trilateral Initiative (under U.S.-Russian Nonproliferation Cooperation).

<sup>23</sup> See J. Sherwood McGinnis, “Article VI of the NPT,” May 1, 2003. McGinnis said, “We made clear last year that the United States no longer supports all 13 steps.”

described its abrogation of that treaty as “abandoning anachronistic Cold War institutions.”<sup>24</sup>

Nonetheless, other activities of the Bush Administration seem to support the 13 practical steps. The United States and Russia signed the Moscow Treaty in 2002, calling for further offensive reductions; the Administration has argued that its Nuclear Posture Review reduces U.S. dependence on nuclear weapons, and both the United States and Russia have closely involved the IAEA in verification of the Trilateral Initiative. In specifying its actions that underscore its Article VI obligations, the Bush Administration has made the following points:

- In the past 15 years, the number of U.S. deployed strategic warheads has declined from 10,000 to less than 6,000. Under the Moscow Treaty, the United States and Russia will reduce their strategic nuclear warheads to between 1700 and 2200 by 2012.
- The United States has dismantled more than 13,000 nuclear weapons since 1988 and eliminated nearly 90% of U.S. non-strategic nuclear weapons.
- The United States has not produced HEU for weapons since 1964, nor plutonium for weapons since 1988, and has not conducted a nuclear test since 1992.
- The United States has removed more than 200 tons of fissile material from the military stockpile, enough for 8,000 weapons.<sup>25</sup>

At the same time, although the Administration is pursuing research that could lead to new types of nuclear weapons, the Administration points out that these programs will permit greater reductions in existing weapons and will not reduce the barriers to nuclear use. U.S. officials have also stressed that the United States is not developing new low-yield weapons, but has low-yield nuclear weapons in its stockpiles and a new low-yield weapon would thus not lower the threshold for nuclear use. U.S. officials also stated that U.S. policy toward negative and positive security assurances has not changed (such language effectively leaves unclear any commitment by the United States on those assurances) but that negative security assurances had become less important in light of the security concerns raised by current NPT crises — North Korea, Iran, and the proliferation network run by A.Q. Khan — as well as terrorism and South Asian nuclear capabilities.<sup>26</sup>

The 2005 Review Conference may not necessarily produce a document that contains language on disarmament similar to that of the 2000 Review Conference, particularly with respect to practical steps. Of the six prior review conferences, only three have produced final, consensus documents. However, many states may wish

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<sup>24</sup> “The Arms Control Philosophy and Accomplishments of the Bush Administration,” Bureau of Arms Control, U.S. Department of State, Feb. 11, 2005.

<sup>25</sup> Stephen G. Rademaker, Assistant Secretary of State for Arms Control, “NPT Article VI,” prepared for the Third Session of the Preparatory Committee for the 2005 Review Conference of the Treaty on the Non-Proliferation of Nuclear Weapons, May 3, 2005.

<sup>26</sup> Rademaker, *ibid.*

to build on the issues highlighted in the Final Document of the 2000 Review Conference.

## Issues Involving the 2005 NPT Review Conference

Some observers believe that review conferences are no longer important events because the NPT was extended indefinitely in 1995. In this view, the outcome of the conference is irrelevant; the NPT will stand or fall based on other developments. Others hold that although the future of the treaty is not at stake in the same way it was in 1995, a contentious review conference can further erode political confidence in the treaty. These observers point to the fact that there is nothing to stop other states from following the example of North Korea in withdrawing from the treaty.

Some of the factors that contribute to a smooth or contentious review conference are the ability of the president of the conference to coordinate the issues and the agenda; the cohesion of states on different sides of the issues; and negotiating skills of key participants (e.g., chairmen of technical committees). In 1995, there was a significant effort by the nuclear weapon states to work together to win indefinite extension of the NPT; at the 2000 review conference, the United Kingdom was apparently seen to be out of sync with the other weapons states on disarmament issues, while in 2004, U.S.-French cooperation seemed to improve.<sup>27</sup> The creation of the New Agenda Coalition in 1998 by seven states (Brazil, Egypt, Ireland, Mexico, New Zealand, South Africa, and Sweden) seems to have given a clearer focus to calls for the nuclear weapon states to do more on disarmament. In contrast, the organization of the 115-state non-aligned movement (NAM) — tends to be fairly loose.

One factor that may affect the accomplishments of the conference is that state parties could not agree on an agenda in advance of the conference. Although the conference began on May 2, members did not agree on an agenda until May 12.

## Prepcom Discussions: 2002-2004

Between the NPT review conferences, state parties convene preparatory committees, called Prepcoms. These meetings provide an opportunity to present papers and exchange ideas on substantive issues, and they can influence the outcome of the review conference.<sup>28</sup> As a result of the 2000 Review Conference, there was a decision that the first and second Prepcoms would debate issues while the third would provide consensus recommendations to the review conference. Although the

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<sup>27</sup> Rebecca Johnson, "Is the NPT up to the challenge of proliferation," *Disarmament Forum*, vol. 4, 2004, p. 13.

<sup>28</sup> The prepcoms were not always so long or substantive. One outcome of the 1995 Review and Extension Conference was to strengthen the review process. In 2000, NPT parties made provisions for inter-session consultations and agreed that the procedural arrangements for the Review Conference should be finalized at the last session of the Prepcom. See Decision 1, NPT/CONF.1995/32 (Part 1), Annex.

first and second Prepcoms did debate issues, the third Prepcom could not agree on recommendations.

The Prepcoms met in 2002, 2003, and 2004, for two weeks each. The first Prepcom, held in New York, was the first major gathering of NPT parties after September 11, 2001. The chairman's summary noted the importance of combating nuclear terrorism and strengthening physical protection of nuclear material, touching lightly on the issues of concern to the NAM and the New Agenda Coalition — the right to peaceful development of nuclear energy and technical cooperation, and practical steps toward disarmament for the nuclear weapon states.<sup>29</sup> The New Agenda Coalition called, at that time, for the transparency, formalization (rather than ad-hoc or voluntary measures) and irreversibility of the nuclear weapons states' disarmament measures.

The second Prepcom was held in Geneva in spring 2003, in the immediate aftermath of the war in Iraq. Just a month earlier, North Korea's 90-day waiting period after announcing withdrawal from the NPT had expired, with no action by the UN Security Council, and investigations into Iran's nuclear program were beginning to reveal significant discrepancies. Reportedly, North Korea, Iran, negative security assurances, and criticism that the United States was conducting research into new low-yield nuclear weapons became divisive issues.<sup>30</sup>

The third Prepcom, held in New York in spring 2004, appeared to be even more divisive than the previous year's meeting. According to one report, the only items the parties could agree to was a budget, a date for the Review Conference, and a conference president (Ambassador Duarte).<sup>31</sup> Both the NAM and the New Agenda Coalition called for faster paced and more formal disarmament progress, as well as formal negative security assurances, while the United States and others called for more attention to compliance with NPT Articles II and III. According to the U.S. statement, the chairman's summary had "fundamental strategic weaknesses."<sup>32</sup> The United States noted that the summary failed to "recognize the degree of crisis that the NPT faces;" that it was particularly dismayed with language on Iran; and that there was a lack of emphasis and balance in the treatment of disarmament issues.

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<sup>29</sup> New Agenda Coalition paper," submitted by Egypt on behalf of the New Agenda countries, NPT/CONF.2005/PC.I/9.

<sup>30</sup> Christine Kucia, "NPT Meeting Confronts New Nuclear Threats," *Arms Control Today*, June 2003, vol. 33, no. 5.

<sup>31</sup> Wade Boese, "NPT Meeting Marked By Discord," *Arms Control Today*, June 2004, vol. 34, no. 5.

<sup>32</sup> NPT/CONF.2005/PC.III/WP.28.



## 2005 Review Conference Topics

**Agenda.** On May 11, 2005, state parties agreed on an agenda identical to the agenda adopted by the 2000 and 1995 review conferences.<sup>33</sup> The first substantive agenda item covers the relationship between nonproliferation, disarmament and international peace and security, covering Articles I, II, VI, and VII. The second agenda item covers security assurances; the third covers nonproliferation, safeguards, and nuclear-weapon-free-zones; and the fourth agenda item covers the inalienable right to nuclear energy for peaceful purposes, Article IV. Although the agenda is identical to those in the past, apparently it was difficult to achieve for several reasons. According to Amb. Duarte, “It is understood that the review will be conducted in the light of the decisions and the resolutions of previous Conferences, and allow for discussion of any issue raised by States parties.”<sup>34</sup>

**Nonproliferation: Articles I, II.** Article I obligates nuclear weapon states not to proliferate nuclear weapons to other states; Article II obligates non-nuclear weapon states not to receive, transfer, or manufacture nuclear weapons. In the past, some non-nuclear weapon states have raised issues about nuclear weapon states’ compliance with Article I, specifically that nuclear weapons cooperation between the United States and the United Kingdom violated Article I. Since 2001, the United States has presented its programs for securing nuclear materials at home and in the former Soviet Union as steps to meet Article I obligations, in light of the threat of nuclear terrorism.<sup>35</sup>

Higher profile non-compliance issues will likely be focused on North Korea, Libya, and certainly Iran. In statements at the Prepcoms, the United States has suggested that waiting for “overt, unambiguous breaches of Article II” weakens the NPT and threatens international security, and suggested that the IAEA Board of Governors bring noncompliance cases to the Security Council.<sup>36</sup>

**Verification: Nuclear Safeguards in Article III.** Most states agree that adoption of the Additional Protocol (measures to strengthen safeguards in the wake of Iraq’s clandestine nuclear program in 1991) should be universal. As noted earlier, President Bush suggested in February 2004 in a key nonproliferation speech that the Additional Protocol should be a condition of nuclear supply.<sup>37</sup> At this writing, the Nuclear Suppliers’ Group is still considering implementation of that proposal. President Bush also proposed creating a special committee of the IAEA Board to

<sup>33</sup> See [<http://www.un.org/events/npt2005/index.html>], the official UN website for the conference, for the entire text of the agenda. UN document NPT/CONF.2005/30.

<sup>34</sup> See [<http://www.un.org/News/briefings/docs/2005/NPTBrf050512.doc.htm>].

<sup>35</sup> “NPT Articles I and II,” John S. Wolf, Assistant Secretary for Nonproliferation, Third Session of the Preparatory Committee for the 2005 Review Conference of the Treaty on the Non-Proliferation of Nuclear Weapons, New York City, New York, Apr. 30, 2004.

<sup>36</sup> *Ibid.*

<sup>37</sup> Remarks by the President on Weapons of Mass Destruction Proliferation, Feb. 11, 2004. See [<http://www.whitehouse.gov/news/releases/2004/02/20040211-4.html>].

focus on safeguards and verification. It is unclear whether the review conference will address this issue.

Article III of the treaty also covers nuclear export controls. Although the controls are implemented outside the treaty, the issue of further restricting enrichment and reprocessing technology has been a topic of hot debate. It is unlikely that the Review Conference will resolve this issue; some observers have suggested that it is too complicated an issue to resolve in a four-week conference. However, the specter of further restrictions could color states' resolve to extract concessions by the nuclear weapon states on nuclear disarmament in exchange for those further restrictions. For example, one observer suggested that non-nuclear weapon states might agree to forswearing enrichment and reprocessing capabilities if the nuclear weapon states agreed to do the same for their nuclear weapon programs — in effect, a verifiable fissile material production cutoff treaty.

**Peaceful Uses of Nuclear Energy: Article IV.** There are two related issues under Article IV — a state's inalienable right to develop, produce and use nuclear energy for peaceful purposes and the right to participate in the fullest possible exchange (i.e., cooperation) of equipment, technology and information. Iran has argued at the IAEA that it has an inalienable right to peaceful nuclear technology, but that it has been denied nuclear cooperation because the United States and others believe it has nuclear weapons ambitions. U.S. officials have stated that cooperation should be withheld if a state is believed to be pursuing a nuclear weapons program, or is not in full compliance with its safeguards obligations.<sup>38</sup> A potentially more contentious proposal by the United States is that enrichment and reprocessing capabilities should be limited only to "NPT states that currently already possess full-scale, fully functioning enrichment and reprocessing capabilities and are in full compliance with the Treaty."<sup>39</sup> Some states may argue that this perpetuates the "haves" versus the "have-nots" discrimination of the NPT, extending it even to the peaceful nuclear energy realm. In exchange for those limits, the United States would propose "reliable access at reasonable cost" to fuel for civilian reactors. However, the details have not yet been spelled out.

**Progress Toward Nuclear Disarmament: Article VI.** A perennial issue is whether the nuclear weapon states are holding up their end of the bargain — the obligation under Article VI for all states to "pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament, and on a treaty on general and complete disarmament under strict and effective international control." Some states perceive developments in recent years, such as the U.S. failure to ratify the CTBT, the failure to begin negotiations at the Conference on Disarmament on a fissile material production cutoff treaty, and U.S. withdrawal from the ABM Treaty, as noncompliance with Article VI.

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<sup>38</sup> "NPT Article IV," Ambassador Jackie Sanders, Special Representative of the President of the U.S. for the Non-Proliferation of Nuclear Weapons, Third Session of the Preparatory Committee for the 2005 Review Conference of the Treaty on the Non-Proliferation of Nuclear Weapons, New York City, New York, Apr. 29, 2004.

<sup>39</sup> Ibid.

The United States and other nuclear weapon states periodically have produced reports on their actions and policies in support of Article VI.<sup>40</sup> Despite large-scale reductions in U.S. and Russian nuclear weapons stockpiles, many observers continue to point to nuclear weapons research and development, and the remaining thousands of nuclear weapons in the active stockpile as indications of continued reliance on nuclear weapons.

## Issues for Congress

In the context of the Iraq war and the war on terrorism, developments in the last two years in the nuclear programs of Iran, North Korea and Libya have been keenly watched Congress, as well as by the rest of the world. Recent congressional actions — whether resolutions, funding legislation, and nonproliferation sanctions — all have played a role in how U.S. nonproliferation policy is carried out, and ultimately, bear on the success of the NPT and the nonproliferation regime. Those actions affect the U.S. record in nuclear disarmament, progress in diminishing the threat of terrorist access to nuclear weapons, and responses to the noncompliance of countries like Iran, Libya, and North Korea.

With respect to North Korea and Iran, U.S. policy is being pursued in close cooperation with other nations — in the Six Party Talks (China, Japan, Russia, South Korea, and North Korea) in the North Korean case, and with the IAEA and the British, German, and French EU ministers (EU-3) in the Iranian case. Thus, the alignment of those nations' views, at a minimum, with U.S. nonproliferation objectives is important to the success of those efforts. Since the NPT Review Conferences have in the past provided a forum for discussion of these issues, the upcoming conference in New York may be especially fruitful in revealing areas of agreement and dispute. Among the issues that may be clarified by the discussion are:

- The importance of continued U.S. opposition to the Comprehensive Test Ban Treaty;
- The degree of acceptance concerning the idea of restricting uranium enrichment and spent fuel reprocessing, as proposed by President Bush and IAEA Director General ElBaradei;
- The effect of Administration pursuit of nuclear weapons programs such as the Robust Nuclear Earth Penetrator weapon or the Advanced Concepts program, which the Congress declined to fund for FY2005;
- The reaction to U.S. support of a Fissile Material Production Cutoff Treaty, in light of the Administration's position that such a treaty would be unverifiable;
- The significance of U.S. acceptance of the Additional Protocol, which the Senate approved in the 108<sup>th</sup> Congress (on March 31, 2004) with two conditions and eight understandings.<sup>41</sup>

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<sup>40</sup> These reports are available on-line at [<http://disarmament2.un.org/wmd/npt/index.html>].

<sup>41</sup> Treaty Number 107-7, "The Protocol to the Agreement of the International Atomic Energy (continued...)

The review conference might also serve to help underscore the importance of U.S. initiatives like the Proliferation Security Initiative (see H.R. 422, “The 9-11 Commission Combating Proliferation Implementation Act,”) and expansion of cooperative threat reduction assistance programs (see S. 313, “Nunn-Lugar Cooperative Threat Reduction Act of 2005.” Also, the conference could indicate the acceptability of approaches to close the Article IV loophole, as urged by H.R. 665, “Omnibus Nonproliferation and Anti-Nuclear Terrorism Act of 2005.”

The Senate’s approved resolution to advise and consent to ratification of the U.S. Additional Protocol on March 31, 2004, contained two conditions and eight understandings. The President must make certifications to Congress before the deposit of the instrument of ratification regarding national security exclusions, managed access and declared locations, as well as a certification that site vulnerability assessments will be completed not more than 180 days after the deposit of the instrument of ratification. Whether or not the review conference will provide an impetus for the executive branch to finish its review of required certifications for the U.S. Additional Protocol is unclear. Implementing legislation must pass both chambers (see, for example, S. 1987 in the 108<sup>th</sup> Congress). Members of the 109<sup>th</sup> Congress may need to act upon implementing legislation for the U.S. Additional Protocol if or when the executive branch provides the certifications required by the Senate.

Representative Spratt proposed, with 25 co-sponsors, H.Con.Res. 133 on April 14. The Nonproliferation Treaty Enhancement Resolution of 2005 reaffirms U.S. support of the NPT in the context of the Review Conference and expresses support for various measures to strengthen the treaty.

In the past, Members of Congress and their staff have attended NPT Review Conferences. Members wishing to attend may want to consider that the first week is generally conducted as an open session, with speeches by the delegations, while the second and third weeks are generally devoted to technical groups. The last few days are spent drafting a final document for the conference.

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<sup>41</sup> (...continued)

Agency Regarding Safeguards in the United States.” See Senate Executive Report 108-12.