



## **Memorandum**

June 19, 2006

**TO:** Rep. Ed Markey  
Attention: Jeff Duncan

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

**SUBJECT:** The U.S.-India Nuclear Cooperation Initiative and Article I obligations under the Nuclear Nonproliferation Treaty (NPT)

Per your request, this memorandum assesses how proposed U.S. nuclear cooperation with India, a non-party to the NPT that has nuclear weapons, might impinge on the U.S. obligation under Article I of the NPT “not in any way to assist, encourage, or induce any non-nuclear weapon state to manufacture or otherwise acquire nuclear weapons or other nuclear explosive devices, or control over such weapons or explosive devices.” If you have questions, please contact me at x 7-7745.

## **Background**

In 2005, the United States and India announced their intention to engage in peaceful nuclear cooperation. In explaining the rationale behind the cooperation initiative, Under Secretary of State for Political Affairs R. Nicholas Burns told Members of Congress that “We sought the agreement because India’s nuclear weapons program and its status outside the nonproliferation regime has proven to be a long-standing stumbling block to enhance U.S.-India relations.”<sup>1</sup>

The case of nuclear cooperation with India presents a few hurdles. The first is that India has a nuclear weapons arsenal and has tested nuclear explosive devices, both in 1974 and 1998. Despite this, India is legally considered to be a non-nuclear weapon state under U.S. law and under the Nuclear Nonproliferation Treaty (NPT), which defines nuclear weapons states as those that tested a nuclear explosive device before January 1, 1967. This is the first time the United States has had to deal with the issue of cooperation with a country that has nuclear weapons but is not a nuclear-weapon state, which makes

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<sup>1</sup> Statement of R. Nicholas Burns, Under Secretary of State for Political Affairs, before the House International Relations Committee hearing on U.S.-India Relations, September 8, 2005.

Article I a unique and inherent concern. A second hurdle that India has not joined the NPT and does not have safeguards on all nuclear material in all peaceful nuclear activities. While the NPT itself does not prohibit nuclear exports to non-parties, since 1978, U.S. law effectively has prohibited such nuclear cooperation by requiring non-nuclear weapon states to have International Atomic Energy Agency (IAEA) safeguards on all nuclear material in all peaceful nuclear activities.<sup>2</sup> Since 1992, the Nuclear Suppliers Group adopted the same full-scope safeguards condition for exports. The Bush Administration, therefore, is seeking an exception to U.S. law and to NSG guidelines to allow nuclear cooperation with India to proceed.

Given India's nuclear weapons program, a natural question has arisen as to whether the United States and other countries that cooperate in this area with India can ensure that such cooperation is not transferred to India's nuclear weapons program. In fact, the laws and policies requiring full-scope safeguards as a prerequisite for nuclear cooperation were developed largely in response to India's 1974 nuclear test, which demonstrated to many that peaceful nuclear cooperation could be used for nuclear weapons. These laws and policies are predicated on the assumption that only full-scope safeguards provide the necessary confidence that peaceful nuclear cooperation could not be diverted to nuclear weapons purposes. U.S. officials have argued that relaxing the full-scope safeguards restriction for India is possible because India has a good nonproliferation record and India will undertake new nonproliferation commitments to protect against diversion.<sup>3</sup> In addition, they have noted that the NPT does not prohibit nuclear exports to non-parties, despite the decisions taken by all NPT parties at the 1995 and 2000 Review Conferences that non-NPT parties should not be eligible for the same kinds of assistance as NPT parties in good standing. More specifically, NPT parties decided that full-scope safeguards should be a condition for new supply arrangements.

Administration statements suggest that nuclear cooperation with India might pose special requirements in order to meet U.S. NPT obligations under Article I of the treaty. On September 8, 2005, Under Secretary of State Robert Joseph told House International Relations Committee members that "As you know, under Article I of the NPT, we can't do anything that supports the Indian nuclear weapons program. So what we need is a credible and defensible separation of their civilian [and military nuclear programs.]"<sup>4</sup> Inherent in Dr. Joseph's argument is not just that India would separate its facilities, but that it would place some portion of its civil nuclear fuel cycle under IAEA safeguards

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<sup>2</sup> Nuclear safeguards is a system of inspections and reports for detecting and deterring diversion of nuclear material for use in nuclear weapons. For non-nuclear weapon state parties to the NPT, this is formalized in full-scope safeguards agreements (INFCIRC/153). The Atomic Energy Act of 1954, as amended, requires non-nuclear weapon states to have such safeguards, but includes provisions to waive restrictions. The Bush Administration is seeking waivers of those restrictions in separate legislation, introduced as H.R. 4974 in the House and S. 2429 in the Senate. See CRS Report RL 33016, *US-India Nuclear Cooperation: Issues for Congress*, for more detail.

<sup>3</sup> This contrasts starkly with the position the United States has taken with respect to Iran -- that full-scope safeguards are not enough and further fuel cycle restrictions (such as forswearing uranium enrichment and plutonium reprocessing) are necessary to provide such confidence.

<sup>4</sup> Transcript of House International Relations Committee hearing on U.S.-India Relations, September 8, 2005.

(which India committed to doing in the July 18, 2005 Joint Statement) in perpetuity. This is a step beyond requiring safeguards on exports. Although U.S. officials have stated that these declared facilities will be safeguarded in perpetuity, the final outcome will be determined by negotiations between India and the IAEA in the safeguards agreement.<sup>5</sup>

In short, the Administration's position is a middle ground between what the NPT requires (safeguards on exports), and what U.S. law and NSG guidelines require (full-scope safeguards). Answering a question for the record submitted by Senator Lugar to Secretary of State Rice on April 5, 2006 on whether exports of nuclear material or reactors from the United States would in any way assist India's nuclear weapons program or break U.S. obligations under the NPT, the Administration made two major points (see Annex for full text of response):

- § Any items sent to India would be subject to safeguards, and implementation of the Additional Protocol would provide further assurances of the non-diversion of such items or material;<sup>6</sup>
- § The NPT does not consider peaceful nuclear cooperation under safeguards as assisting non-nuclear weapon states to manufacture nuclear weapons

To understand the Administration's argument more fully, it is essential to understand the structure of the NPT and what nuclear safeguards verify under the treaty.

## Structure of NPT

### *Article I*

*Each nuclear-weapon State Party to the Treaty undertakes not to transfer to any recipient whatsoever nuclear weapons or other nuclear explosive devices or control over such weapons or explosive devices directly, or indirectly; and not in any way to assist, encourage, or induce any non-nuclear weapon state to manufacture or otherwise acquire nuclear weapons or other nuclear explosive devices, or control over such weapons or explosive devices.*

### *Article II*

*Each non-nuclear-weapon State Party to the Treaty undertakes not to receive the transfer from any transferor whatsoever of nuclear weapons or other nuclear explosive devices or control over such weapons or explosive devices directly, or indirectly; and not to manufacture or otherwise acquire nuclear weapons or other nuclear explosive devices, and not to seek or receive any assistance in the manufacture of nuclear weapons or other nuclear explosive devices.*

### *Article III (partial)*

*1. Each non-nuclear-weapon State Party to the Treaty undertakes to accept safeguards, as set forth in an agreement to be negotiated and concluded with the International Atomic Energy Agency in accordance with the Statute of the International Atomic Energy*

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<sup>5</sup> India's March 7, 2006 formal explanation of its separation plan raises questions about its interpretation of "perpetuity." See CRS Report RL 33292, *India's Nuclear Separation Plan: Issues and Views*, for further detail.

<sup>6</sup> The Additional Protocol is a measure to strengthen safeguards by providing for additional information, access and inspection tools. INFCIRC/540, concluded in 1997, is the model upon which states' protocols to their safeguards agreements are based.

*Agency and the Agency's safeguards system, for the exclusive purpose of verification of the fulfillment of its obligations assumed under this Treaty with a view to preventing diversion of nuclear energy from peaceful uses to nuclear weapons or other nuclear explosive devices...The safeguards required by this article shall be applied to all source or special fissionable material in all peaceful nuclear activities within the territory of such State, under its jurisdiction, or carried out under its control anywhere.*

*2. Each State Party to the Treaty undertakes not to provide: (a) source or special fissionable material, or (b) equipment or material especially designed or prepared for the processing, use or production of special fissionable material, to any non-nuclear weapon State for peaceful purposes, unless the source or special fissionable material shall be subject to the safeguards required by this article.*

The basic obligations in the NPT are contained in Articles I and II: nuclear weapon states are obligated not to transfer nuclear weapons to non-nuclear weapon states (or help them manufacture) and non-nuclear weapon states are obligated not to receive or manufacture nuclear weapons. The treaty defines only nuclear weapon states – those states that detonated a nuclear explosive device before January 1, 1967. All other states must join the treaty as non-nuclear weapon states.

There is no verification of the obligations in Article I and II.<sup>7</sup> Articles I and II encompass a wide range of undefined and proscribed activities, but the treaty only verifies those related to fissile material. Article III of the treaty requires states to accept nuclear safeguards, with different requirements for the two types of states. Non-nuclear weapon states accept safeguards on all nuclear material in all peaceful nuclear activities. All state parties to the treaty are obligated not to export nuclear material<sup>8</sup>, or equipment or material especially designed for processing, using or producing special fissionable material to a non-nuclear weapon state unless the material is subject to the safeguards required by Article III.

The idea behind full-scope safeguards is that inspecting all nuclear material in all peaceful nuclear activities in non-nuclear weapon states would ensure that a non-nuclear weapon state would not acquire the key ingredient for nuclear weapons – that is, fissile material. The provision in paragraph 2 of Article III for all states to require safeguards on nuclear material transfers applies to exports to all non-nuclear weapon states, inside or outside the treaty. Similarly, the obligation of nuclear weapon states under Article I, according to one scholar, “applies with equal force to all such states, whether or not they are parties to the Treaty. Indeed, any other result would constitute an inducement to non-nuclear weapon states not to become parties.”<sup>9</sup>

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<sup>7</sup> Mason Willrich, *Non-proliferation Treaty: Framework for Nuclear Arms Control*, The Michie Company, Charlottesville, VA, 1969, p. 100.

<sup>8</sup> The treaty specifies source or special fissionable material. These are defined in the IAEA Statute, Article XX. Source material is generally uranium or thorium containing naturally-occurring mixes of isotopes; special fissionable material is plutonium-239; uranium-233; uranium enriched in the isotopes 235 or 233; and material containing mixes thereof. See <http://f40.iaea.org/worldatom/Documents/statute.html>

<sup>9</sup> Willrich, *op. cit.*, p. 95.

## Article I: Historical Perspectives

According to one scholar, “Articles I and II [of the NPT] proscribe a further range of activity which is broad, vague and in large measure susceptible only of subjective appraisal.”<sup>10</sup> And yet, the language of Article I with respect to not assisting, encouraging, or inducing a nuclear weapon state to manufacture or otherwise acquire nuclear weapons – evolved from initially narrow obligations.<sup>11</sup> The 1961 “Irish Resolution,” UN General Assembly Resolution 1665 (XVI), which contained the seeds of Article I of the NPT, called on nuclear states to refrain from relinquishing control of nuclear weapons and from transmitting information necessary for their manufacture to non-nuclear weapon states. The first U.S. draft treaty, dated August 17, 1965, included a prohibition on transfer of nuclear weapons and an obligation “not to assist any non-nuclear State in the manufacture of nuclear weapons.”<sup>12</sup> A Soviet counterproposal expanded the obligation: “not to provide assistance – directly or indirectly, through third States or groups of States – to States not at present possessing nuclear weapons in the manufacture, in preparations for the manufacture or in the testing of such weapons and not to transmit to them any kind of manufacturing, research or other information or documentation which can be employed for purposes of the manufacture or use of nuclear weapons.”<sup>13</sup> U.S. negotiators feared the Soviet approach would bar “participation by non-nuclear allies in decisions concerning where nuclear weapons belonging to their nuclear allies might be emplaced on their territory,” and to prohibit “the transfer to non-nuclear allies of any information concerning use of nuclear weapons.”<sup>14</sup>

In 1966, the U.S. proposal first introduced the concept of “no encouragement or inducement.” Reportedly, that language was taken from the Limited Test Ban Treaty, completed in 1963, but according to one scholar, “the concept in the context of the NPT is, however, even broader and more nebulous than the prohibition against assistance, and no other parts of the Treaty operate to narrow or sharpen the meaning of the terms used...The range of possibly activities by nuclear-weapon states which constitute assistance, encouragement or inducement under the Non-Proliferation Treaty might develop into a fertile field for future legal controversy...”<sup>15</sup>

Negotiators did debate what activities might constitute “manufacture,” although the term is not defined in the treaty. There were fewer debates on what assistance,

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<sup>10</sup> Willrich, *op. cit.* p. 90.

<sup>11</sup> The issue of transferring nuclear weapons to India is not at issue here, and much of the negotiating history is devoted to U.S.-Soviet attempts to work around allied control of nuclear weapons. For more detail, see Mason Willrich, *op. cit.*, Chapter IV.

<sup>12</sup> U.S. Arms Control and Disarmament Agency, *Documents on Disarmament, 1965*, pp. 347 and ff.

<sup>13</sup> U.S. Arms Control and Disarmament Agency, *Documents on Disarmament, 1965*, pp. 443 and ff.

<sup>14</sup> Statement by ACDA Director Foster to the Eighteen Nation Disarmament Committee: Nonproliferation of Nuclear Weapons, June 28, 1966. U.S. Arms Control and Disarmament Agency, *Documents on Disarmament, 1966*, pp. 385 and ff.

<sup>15</sup> Willrich, *op. cit.*, p. 94.

encouragement, or inducement might entail, and certainly no definitions in the treaty. The Bush Administration, in its response to the April 5, 2006 question for the record on whether or not exports might violate U.S. NPT obligations, noted Mohamed Shaker's conclusion (taken verbatim from Willrich) that "Almost any kind of international nuclear assistance is potentially useful to a nuclear weapon program." In attempting to explain how to come to grips with that dilemma, Willrich pointed to the application of safeguards to nuclear assistance as providing "a means to establish and clarify the peaceful purpose of most nuclear assistance." In attempting to parse what activities would constitute "manufacture," Director of the Arms Control and Disarmament Agency (ACDA) Foster told Congress that "placing a particular activity under safeguards would not, in and of itself, settle the question of whether that activity was in compliance with the treaty, [but] it would of course be helpful in allaying any suspicion of non-compliance."<sup>16</sup>

## Potential Concerns about U.S. Compliance with Article I

There are three potential aspects of U.S.-India nuclear cooperation that could raise concern about US. compliance with Article I of the NPT. First, there is the question of whether the separation plan is adequate. Under Secretary of State Robert Joseph told members of the Senate Foreign Relations Committee on November 2, 2005 that: "Moreover, any separation plan must ensure and the safeguards must confirm that cooperation does not in any way assist in the development or production of nuclear weapons."

A second issue is the extent to which U.S.-India nuclear cooperation confers nuclear weapons state status on India, with an unintended consequence of encouraging the Indian nuclear weapons program. A third issue is whether opening up the international uranium market frees up India's domestic uranium for use in its weapons program.

**Credible, defensible separation plan.** As seen from the discussion above, the purpose of separating India's nuclear program into civilian and military facilities appears to be to provide greater assurance that civil nuclear cooperation will not be diverted to military purposes. The Bush administration asserted in November 2005 that "The safeguards must effectively cover India's civil nuclear fuel cycle and provide strong assurances to supplier states and the IAEA that material and technology provided or created through civil cooperation will not be diverted to the military sphere."<sup>17</sup>

The Administration has defended the separation plan most recently as credible and defensible in this way:

For [the separation plan] to be credible and defensible from a nonproliferation standpoint, it had to capture more than just a token number of Indian nuclear facilities, which it did

<sup>16</sup> Extension of Remarks By Mr. Foster in Response To Question Regarding Nuclear Explosive Devices, Hearings Before the Committee on Foreign Relations, U.S. Senate, Ninetieth Congress, Second Session, Executive H, Treaty on the Nonproliferation of Nuclear Weapons, July 10, 11, 12, 17, 1968, p. 39.

<sup>17</sup> Responses by the State Department to questions for the record submitted by Senator Richard Lugar, November 2, 2005.

by encompassing nearly two-thirds of India's current and planned thermal power reactors as well as all future civil thermal and breeder reactors. Importantly, for the safeguards to be meaningful, India had to commit to apply IAEA safeguards in perpetuity; it did so. Once a reactor is under IAEA safeguards, those safeguards will remain there permanently and on an unconditional basis. Further, in our view, the plan also needed to include upstream and downstream facilities associated with the safeguarded reactors to provide a true separation of civil and military programs.<sup>18</sup>

Several critics have noted shortcomings in the Indian separation plan as explained to the Indian parliament on March 7, 2006.<sup>19</sup> The plan leaves the following facilities unsafeguarded: at least 8 power reactors; fast breeder reactors; enrichment, reprocessing plants; and research reactors. The fate of the CIRUS reactor, which Canada recently requested India to place under safeguards, given its controversial history, was resolved by Indian plans to shut it down by 2010.<sup>20</sup> Yet, India reportedly has plans to build a new plutonium production reactor.<sup>21</sup> This raises several questions: did the U.S.-India civil cooperation initiative result in shutting down CIRUS earlier than anticipated, and thus speed up development of the larger replacement reactor? Did the prospect of more available domestic fuel for weapons plutonium production "encourage" India to build a larger plutonium production reactor?

As noted earlier, the Administration addressed the question of whether exports of nuclear material or reactors from the United States would in any way assist India's nuclear weapons program or break U.S. obligations under the NPT, focusing on the role of safeguards in providing necessary assurances. Yet, the question and the response focused on just one potential scenario under Article I – material and reactor supply to India. Although the scope of cooperation is still unclear pending finalization of the draft nuclear cooperation agreement, a standard clause in such cooperation agreements provides for the transfer of information.

It should be noted that while IAEA safeguards ensure that nuclear material is not diverted, there are no procedures or measures in place to ensure that information, technology and know-how are not transferred from the civil sector to the military sector. This could become a key loophole, particularly because the separation plan places 8 indigenous power reactors under safeguards, while leaving at least 8 indigenous power reactors outside of safeguards. Without additional measures to prevent the transfer of personnel or knowledge from the safeguarded program to the unsafeguarded program, there would be little assurance that assistance to the safeguarded program could not migrate to the military program. For example, U.S. assistance to one of the eight indigenous power reactors, whether focused on nuclear safety, improving operational

<sup>18</sup> Questions for the Record Submitted to Secretary of State Condoleezza Rice by Senator Richard Lugar (#2) Senate Foreign Relations Committee, April 5, 2006.

<sup>19</sup> For more detail, see CRS Report, RL 33292, *India's Nuclear Separation Plan: Issues and Views*.

<sup>20</sup> The CIRUS reactor produced plutonium for India's 1974 nuclear test. India had given peaceful use assurances to Canada, which supplied the reactor, and the United States, which supplied the heavy water, and had been warned by the United States that production of plutonium in that reactor for a peaceful nuclear explosive would not be considered a "peaceful use."

<sup>21</sup> "Replication of Dhruva Reactor Proposed for Next Indian Economic Plan," *Nuclear Fuel*, Volume 31, No. 10, May 8, 2006.

efficiency, or extending its lifetime, could easily be applied by Indian personnel to one of the similar, but unsafeguarded indigenous power reactors. In response to a separate question for the record from Senator Lugar on personnel practices at India's Department of Atomic Energy, Administration officials stated that "Routine rotation of personnel between civil and military programs would be inconsistent with Indian commitments on civil-military separation." However, there are no indications that India plans to restrict rotations of personnel.

There is an additional concern related to the production of materials in reactors that are useful in nuclear weapons – e.g., tritium, polonium, and others – but are not normally covered by IAEA safeguards because they are not nuclear materials. In particular, tritium, which is produced as an inevitable byproduct in India's indigenous heavy water power reactors, can be used to boost the yield of fission weapons and in thermonuclear weapons. Although some safeguards agreements in the past have covered more materials other than nuclear material (for example, heavy water), it is unclear whether the India-specific safeguards agreement will do so, thus raising the question of whether India could operate safeguarded nuclear reactors that produce tritium for possible use in weapons.<sup>22</sup> Absent safeguards on all heavy water used in India's civil nuclear facilities, it would be virtually impossible to prevent the use of tritium produced in civil reactors for weapons purposes.<sup>23</sup>

Finally, although the Additional Protocol will provide more information on India's civil nuclear sector, the military sector will still be outside the scope of scrutiny, and therefore the Protocol is unlikely to help significantly in these areas. Moreover, the Protocol is designed to detect undeclared activities, rather than to detect diversion, so it is generally less useful in the case of a state with a nuclear weapons program.

**De-facto recognition.** In a HIRC hearing on September 8, 2005, Rep. Ros-Lehtinen stated that "It is critical that we consider the far-reaching implications of a full nuclear cooperation with India, and how a *de facto* recognition of India as a nuclear weapons state would undermine U.S. nonproliferation policy, and potentially create a negative and damaging domino effect." Senator Lugar, in his opening remarks in a November 2, 2005 Senate Foreign Relations Committee hearing, noted that "Prior to the July 18 joint statement India had repeatedly sought unsuccessfully to be recognized as an official nuclear weapons state, a status the NPT reserves only for the United States, China, France, Russia and the United Kingdom. Opponents argue that granting India such status will undermine the essential bargain that is at the core of NPT, namely, that only by foregoing nuclear weapons can a country gain civilian nuclear assistance." A witness at the SFRC hearing, Dr. Ashton Carter, suggested the following:

India obtained de-facto recognition of its nuclear weapons status. The United States will behave, and urge others to behave, as if India were a nuclear weapons state under the NPT. We won't deny it most civil nuclear technology or commerce. We won't require it to put all of its nuclear facilities under IAEA safeguards -- only those it declares to be

<sup>22</sup> India's implementation plan states that it will declare three heavy water production plants, but that this declaration is irrelevant for safeguards purposes.

<sup>23</sup> The United States has used a reactor at Watts Bar to produce tritium for nuclear weapons, which remains eligible for IAEA safeguards.

civil. Beyond these technicalities, nuclear recognition confers an enormous political benefit on India.

Secretary of State Rice answered a question for the record in April 2006 on India's nuclear weapon state status:

While India has nuclear weapons and we must deal with this fact in a realistic, pragmatic manner, we do not recognize India as a nuclear weapon state or seek to legitimize India's nuclear weapons program.

However, other officials' statements appear to lend more support to India. For example, Under Secretary of State Nicholas Burns told reporters on March 2, 2006, that "It's not a perfect deal in the sense that we haven't captured 100 percent of India's nuclear program. That's because India is a nuclear weapons power, and India will preserve part of its nuclear industry to service its nuclear weapons program."<sup>24</sup>

Mohamed ElBaradei, Director General of the IAEA, views the U.S.-India deal as "neutral" because "it does not confer any 'status', legal or otherwise, on India as a possessor of nuclear weapons."<sup>25</sup> The United States is not granting *de jure* recognition to India as a nuclear weapon state, because doing so would require amendment of the NPT, a prospect that is unattainable, according to most experts. Nonetheless, a successful U.S. effort to gain an exemption in U.S. nuclear cooperation law would place India in the company of only four other nations – the United Kingdom, France, China, and Russia – all *de jure* nuclear weapon states. While this may not constitute formal recognition of India as a nuclear weapon state, many observers believe that it legitimizes India's nuclear weapons program, thus providing *de facto* recognition. Indian official statements have supported the conclusion that its interpretation of "advanced nuclear states" is synonymous with nuclear weapon states and India's separation plan compares Indian nuclear capabilities only to those of other nuclear weapon states.

**Freeing up scarce uranium for India's weapons program.** It was recognized even before the entry into force of the NPT that a state outside the NPT could preserve its domestic uranium sources for a possible weapons program as long as it agreed to accept IAEA safeguards on the items it imported. According to Mason Willrich,

As long as India does not become a party to the Non-Proliferation Treaty, it can continue to import from the parties nuclear materials and equipment subject to safeguards for use in its civil nuclear power program. This would free its indigenous resources, particularly its limited uranium supply, for possible concentration on a nuclear weapons program.<sup>26</sup>

Since the adoption in 1992 by the Nuclear Suppliers Group of full-scope safeguards condition for exports, India has not had access to the international uranium

<sup>24</sup> White House, Office of the Press Secretary, "Press Briefing by Under Secretary of State for Political Affairs Nick Burns," Maurya Sheraton Hotel and Towers, New Delhi, India, March 2, 2006.

<sup>25</sup> Mohamed ElBaradei, "Rethinking Nuclear Safeguards," *Washington Post*, June 14, 2006.

<sup>26</sup> Mason Willrich, *Non-proliferation Treaty: Framework for Nuclear Arms Control*, The Michie Company, Charlottesville, VA, 1969, p. 125.

market.<sup>27</sup> Several critics of the U.S.-India nuclear cooperation initiative have argued that giving India access to the international uranium market would free up India's domestic uranium resources for its weapons program. While this is clearly not the intention of such nuclear cooperation, it is a clear consequence of such cooperation. In a December 12, 2005 article in the *The Times of India*, India's leading strategist K. Subrahmanyam suggested that "Given India's uranium ore crunch and the need to build up our minimum credible nuclear deterrent arsenal as fast as possible, it is to India's advantage to categorize as many power reactors as possible as civilian ones to be refueled by imported uranium and conserve our native uranium fuel for weapon-grade plutonium production."<sup>28</sup>

In a hearing before the House International Relations Committee on April 5, 2006, Secretary of State Rice disputed these claims:

...Clearly this agreement does not constrain India's nuclear weapons program. That was not its purpose... Neither, however, as some critics have suggested, does it enhance India's capability to build nuclear weapons. India has about, by most estimates, 50,000 tons or so of uranium in its reserves. That means that the very small percentage of that that would be needed for a military program, they could get, certainly, without this agreement. I would note that we do not believe that the constraint on India's nuclear program is the availability or absence of nuclear material. With 50,000 tons of uranium available to them, only a very small percentage of that would be needed for a military program. But of course for a civil nuclear program, one needs a considerable and continuous supply of nuclear material and fuel. And that's why we believe that we can assess that the incentives are all on the civilian side. To get fuel to fuel a large civilian nuclear program does take a lot of material. It really takes not very much material at all to have a military program.

Secretary Rice seemed to be suggesting that having more uranium would not encourage or assist India's nuclear weapons program because it already had the fissile material it needed. If, as Secretary Rice suggests, the military requirements are dwarfed by civilian requirements, then finding international sources for civilian requirements could result in a windfall for the weapons program. However, the question for the United States is not whether India intends to ramp up its weapons program with freed-up uranium, but whether U.S. and other states' actions create a new capability for India to do so.

In her answer to the question for the record in the Annex (Question #20), Secretary Rice further elaborated that the argument about freeing up uranium would not change "this legal conclusion." This could refer to the conclusion earlier in the answer that "Specifically, Article III (2) establishes the basis under which NPT parties may engage in nuclear cooperation with safeguarded facilities in countries that are not parties

<sup>27</sup> Several countries have supplied low-enriched uranium to the U.S.-origin Tarapur reactors, including France, China and Russia.

<sup>28</sup> K. Subrahmanyam, former head of the Institute for Defence Studies and Analysis, was appointed Head of the National Security Council Advisory Board (NSCAB) established by the first Vajpayee government to draft the Indian nuclear doctrine. He currently chairs PM Singh's Global Strategic Developments Task Force. See also Dr. A. Gopalakrishnan, "Civilian and Strategic Nuclear Facilities of India," January 5, 2006.

and do not have full-scope safeguards.” However, Article III does not verify all Article I obligations. Alternatively the legal conclusion could refer to the statement that “nothing in the NPT, its negotiating history, or the practice of the parties supports the notion that fuel supply to safeguarded reactors for peaceful purposes could be construed as ‘assisting in the manufacture of nuclear weapons’ for purposes of Article I.” Yet, the question about freeing up domestic uranium so that it can be used for nuclear weapons is a different issue than whether the safeguarded fuel is diverted. That question is much broader, and touches upon whether the *de facto* recognition of its nuclear weapons program, the offer of nuclear cooperation with the potential for technical improvements to its indigenous reactors, half of which will not be safeguarded, and the availability of much more uranium (far more than it needs, now) for weapons helps India, encourages India and or induces India to build up its nuclear weapons arsenal.

## Issues for Congress

Times change and so can treaty interpretations. For example, as Ambassador Jackie Sanders told the 2005 NPT Review Conference, enrichment and reprocessing facilities, with no clear economic or peaceful justification, are now viewed as suspect activities:

Facts indicating that the purpose of such an activity is the acquisition of a nuclear explosive device would tend to show noncompliance with Article II. Examples of activities of concern include: seeking certain fuel cycle facilities of direct relevance to nuclear weapons, such as enrichment or reprocessing, with no clear economic or peaceful justification; clandestine facilities and procurements; committing safeguards violations and failing to cooperate with the IAEA to remedy them; and using denial and deception tactics to conceal nuclear-related activities.<sup>29</sup>

This contrasts with the interpretation of the NPT given by the ACDA Director Foster in 1968 to the Senate Foreign Relations Committee:

Facts indicating that the purpose of a particular activity was the acquisition of a nuclear explosive device would tend to show noncompliance... It may be useful to point out, for illustrative purposes, several activities which the United States would not consider per se to be violations of the prohibitions in Article II. Neither uranium enrichment nor the stockpiling of fissionable material in connection with a peaceful program would violate Article II so long as these activities were safeguarded under Article III.<sup>30</sup>

In 1970, there were only five nuclear weapon states and it was not clear that the NPT would reach near-universal membership. Treaty negotiators had little choice but to

<sup>29</sup> Ambassador Jackie W. Sanders, Special Representative of the President for the Nonproliferation of Nuclear Weapons, Statement to the 2005 Review Conference of the Treaty on the Nonproliferation of Nuclear Weapons, New York, May 19, 2005, “NPT Article I and II: The Threat of Noncompliance.”

<sup>30</sup> Extension of Remarks By Mr. Foster in Response To Question Regarding Nuclear Explosive Devices, Hearings Before the Committee on Foreign Relations, U.S. Senate, Ninetieth Congress, Second Session, Executive H, Treaty on the Nonproliferation of Nuclear Weapons, July 10, 11, 12, 17, 1968, p. 39.

allow for supply to non-NPT parties (which included Japan, Italy, and West Germany for several years). The larger concern at the time -- transfer of control of nuclear weapons among allies -- waned as the idea of multilateral nuclear forces died. Given the development of nuclear weapons by states outside the treaty, states acted to strengthen controls, and in 1992, the Nuclear Suppliers Group adopted full-scope safeguards as a condition of supply. With the 1998 declarations by India and Pakistan of their nuclear weapons capabilities, it can be argued that supplying nuclear cooperation to these states raises Article I issues. There is no question that India will continue to "manufacture" nuclear weapons and no question that more indigenous uranium would be available if external sources are allowed to be imported.

Many observers believe that the time is ripe for new approaches to nonproliferation. Mohamed ElBaradei, Director General of the IAEA, wrote in support of nuclear cooperation with India in the *Washington Post* on June 14, 2006. At the same time, ElBaradei called for a renewed commitment to disarmament and tighter controls on sensitive parts of the fuel cycle like uranium enrichment and plutonium reprocessing. Few observers disagree that the nonproliferation regime needs to be strengthened and the stronger U.S. ties with India are desirable. However, the U.S. initiative at present would not meet ElBaradei's new criteria for disarmament and controls on the fuel cycle, because steps such as a halt in fissile material production for weapons are not included, nor are safeguards on India's enrichment and reprocessing. Although U.S. officials recently tabled a draft Fissile Material Production Cutoff Treaty (FMCT) at the Conference on Disarmament in Geneva, the treaty has no verification provisions and would not require India to join for it to enter into force. India, which has supported a FMCT in the past, and as part of its July 18, 2005 commitments to the United States, supports a verifiable treaty.

The potential impact of concerns about Article I compliance lies primarily in the confidence of NPT parties in their regime and their political willingness to take on new nonproliferation missions, roles, and obligations. Nuclear Suppliers Group members, having adopted the condition of full-scope safeguards for exports, will be asked to relax that standard for India. If elements of the U.S.-India nuclear cooperation initiative appear to encourage India's nuclear weapons program, key states may be less willing to aid U.S. efforts to shore up the nonproliferation regime.