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Article IV of the NPT: Background, Problems, Some Prospects

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Article IV of the NPT: Background, Problems, Some Prospects.

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Revelations regarding Iran's undeclared activities in developing a uranium enrichment infrastructure have stirred concern not only about Tehran's compliance with its undertakings under the nuclear Nonproliferation Treaty (NPT), but also about the broader issue of how to deal with the nuclear fuel cycle consistent with nonproliferation in the contemporary international environment. Traditionally, the full nuclear fuel cycle has included facilities for enriching uranium for nuclear power plant fuel – a process that can also provide highly enriched uranium for nuclear weapons – and a facility for reprocessing spent nuclear power plant fuel to obtain plutonium – material that can also be used for fuel or for nuclear arms.

The NPT is the legal and political foundation of the nuclear nonproliferation regime and the most widely adhered to arms control treaty in history. The core objective of the treaty, negotiated in 1968 and extended indefinitely in 1995, is halting the spread of nuclear weapons. From the point of view of the non-nuclear weapon states, whatever the merits of concluding an international treaty to prevent the further spread of nuclear weapons, equal attention needed to be given to balancing obligations between the nuclear weapon states and the non-nuclear weapon states on the other. Reaching agreement on the text of the treaty entailed two so-called bargains: First a commitment by the nuclear weapon states to reduce their nuclear arsenals and to pursue measures toward nuclear disarmament; second, the stipulation that all states party would have full access to the peaceful uses of nuclear energy. These two elements are reflected in articles VI and IV respectively of the NPT and they have been two of the most persistent and animated issues discussed and debated at the successive NPT review conferences.

At the time of the negotiations on the NPT India stated the article IV proposition unequivocally: atomic apartheid in the civil sector would be unacceptable. Article IV.1 asserts the inalienable right of all parties to carry out peaceful nuclear activity in

conformity with Article I and II of the treaty, and largely responded to demands of the advanced industrial non-nuclear weapon states. Article IV.2 more specifically addresses the concerns of developing countries in providing that all parties have the right to undertake and participate in the fullest possible exchange of equipment, materials and scientific and technological information. It is worth noting that the initial drafts of the article were more vague. In particular, they referred to parties having the right to participate in the "fullest possible exchange", but under pressure from developing states the words "to facilitate" were added to underscore a commitment to actively assist. Earlier drafts focused on sharing scientific and technological information but that was expanded to cover equipment and materials as well thereby enlarging the scope of expected participation and facilitation. However, an initiative to transform the undertaking "to facilitate the fullest possible exchange of equipment, materials, and scientific and technological information for the peaceful uses of nuclear energy into a duty to do so was rejected – a point worth bearing in mind in considering the scope and limits of the article IV provisions. The overriding constraint on transfers, exchanges and assistance were that they be exclusively for peaceful uses of nuclear energy and that safeguards be applied.

India's nuclear test in 1974 and a surge of interest in nuclear energy in general and in reprocessing in particular in the wake of the 1973 oil crisis led the key nuclear suppliers of the day to meet and consider principles and practices that should serve as guidelines for nuclear export policy. While most of the agreed provisions related to non-proliferation, safeguards, physical security and conditions for retransfer of material, equipment or technology provided by the suppliers, two related to the issue of "inalienable right". In particular, the suppliers agreed to exercise restraint in considering the export of enrichment, reprocessing and heavy water production and to encourage multilateral in lieu of national facilities in so far as reprocessing and enrichment were concerned. For these supplier states the implementation of the "inalienable right" provision in the NPT was thus couched in terms of <u>restraint</u> indicating that there was <u>not</u> an <u>obligation</u> to provide the listed technologies simply because an NPT party under safeguards made the request. In fact and practice, none of the members of the Nuclear Supplier Group have since transferred these sensitive technologies to states not already

possessing them, and as the group has enlarged from the original seven members to forty today, this continues to hold true.

However, the world of 2004 differs in significant ways from the world of 1968 when the treaty was negotiated and 1976 when the guidelines were elaborated. Cold War bipolarity has given way to circumstances in which political and security agendas and dynamics have become increasingly defined in regional terms. Motivations to either acquire nuclear weapons or to be in a position to be able to make a decision to that effect and to rapidly convert on-the-ground nuclear infrastructure to that end has taken on greater salience than when the disciplines of the Cold War were predominant. For states whose sense of security is tenuous the prospect of being in a position to develop a nuclear deterrent if necessary may be great. For others, aspirations to regional predominance and/or international standing may motivate a similar interest. In either event, regional and international stability and security stand to suffer if those incentives translate into concrete actions.

Opportunity has increased along with motivation. Access to the knowledge, know-how and resources needed to build nuclear capability has grown and the sources of technology and equipment have become increasingly diversified. Not only are more states capable of providing such resources, some of whom may not be adherents to the nuclear supplier guidelines mentioned above (e.g. Pakistan, India and Israel), but as the disclosures about the network of transfers centered around A.Q. Khan underscore, there is in addition the problem of clandestine or illicit sources of supply. Considering also the increasing threat to national security and international stability of growing networks of transnational terrorist organizations and their stated interest in acquiring access to nuclear explosives or radiological materials for use in dirty bombs, it is clear that conditions today differ markedly from those that prevailed a relatively short time ago. The recently agreed U.N. Security Council Resolution 1540 should make a difference but how quickly, how effectively, and how comprehensively remains to be seen.

In addition, there now looms an equal if not greater concern underscored by developments in North Korea (and potentially Iran?) -- that a state may acquire nuclear technology and capability as an NPT party in good standing and subsequently exercise the NPT Article X right to withdraw if the state "decides that extraordinary events,

related to the subject matter of this treaty, have jeopardized the supreme interests of its country." That is to say a state could in this scenario develop a full fuel cycle for peaceful use, account for all nuclear material under safeguards, and upon withdrawing from the treaty be left with an infrastructure enabling it to turn quickly to producing nuclear weapons. If accomplished with indigenously developed equipment and technology as contrasted with items acquired under safeguards and encumbered by other conditions by external suppliers, this action would be within its legal rights.

The issues raised reflect the challenge that has confronted the world since the beginning of the nuclear age – how to reconcile the development of nuclear energy for peaceful purposes with preventing states from using their nuclear knowledge, technology and assets to acquire nuclear weapons. With the case of Iran, matters took on a new urgency when revelations last year reinforced long-held fears by many outside states that Iran was using its power reactor program to mask efforts to develop nuclear weapons. Specifically, Iran had failed to report the construction of a pilot scale plant to enrich uranium, the import and subsequent processing of natural uranium including enriching uranium, separating plutonium in the absence of safeguards, and the construction of a heavy water production plant presumably to service plutonium producing reactors which would have little if any justification in a civil nuclear program.

The Iranian situation called into question the adequacy of the NPT and the IAEA safeguards system to foreclose further nuclear proliferation and set in motion a search for ways to come to grips with these challenges to the regime and the treaty. Further strengthening of safeguards, tightening of export controls, pro-actively interdicting transfers of dangerous technologies and equipment are among them. But so also is a focus on restraint in the further transfer of sensitive technology and on innovative institutional arrangements to forestall the spread of nationally owned and operated sensitive nuclear fuel cycle facilities. The former is reflected in the proposals of President George W. Bush outlined in a speech at the National Defense University on February 11, 2004 including further strengthening export control provisions by curtailing any transfer of enrichment or reprocessing technology to states that do not already have full-scale capabilities in these fuel cycle activities. Institutional remedies are the focus of

IAEA Director-General Mohamed El Baradei's proposal to limit enrichment and reprocessing to facilities under multinational or international control.

While heretofore civil nuclear programs have not been the vehicle of choice for states seeking to acquire nuclear weapons that appears to be changing. Diversion of material from safeguarded facilities is not the problem, although development of clandestine programs in parallel with open and safeguarded activities has occurred as in the case of North Korea, Iraq, Libya and Iran. Rather, the problem is increasing concern over the past decade of states using the NPT to openly acquire the enrichment and reprocessing capabilities that provide the means to acquire materials that could be used to develop nuclear weapons, and having done so, to possibly withdraw from the treaty on 90 days notice and develop nuclear weapons without violating the NPT. Iran is the focal point of this concern at present. The dilemma is how to interpret the inalienable right specified in Article IV with the nonproliferation obligations specified in Articles I and II of the NPT.

The central question here is what constitutes an appropriate nuclear fuel cycle, and how can a sustainable and widely supported consensus on that issue be reached? Is there an absolute right of any state to construct a full fuel cycle that involves technology and facilities that involve weapons usable material when there is no peaceful nuclear infrastructure to support, when there is no obvious justification in terms of a sufficient number of power reactors to warrant developing these capabilities? Who is to make that judgment, and how? Is there an obligation on the part of technology holders to transfer technology upon request? Should considerations such as not only what the state in question's energy and nuclear infrastructure are, what its nonproliferation credentials are, where it is located in terms of regional stability and security be taken into account by exporters and technology holders? And what role should the international market that provides nuclear fuel and can offer assurances of supply through a variety of mechanisms play in formulating a consensus? How should we deal with the indigenous development scenario – perhaps the most problematic since the state may not have depended on external sources of technology, equipment or material to develop the fuel cycle and therefore no claim can be made against it retaining fuel cycle facilities should it withdraw from the NPT? How, in the final analysis should we deal with the Indian contention

mentioned earlier – that non-nuclear weapon states will not tolerate a civil nuclear apartheid.

These are some of the key questions that need to be addressed in order to come to terms on the issue of NPT Article IV.

There are de jure and de facto ways of dealing with the issue. A de jure approach is less likely to be successful – it could entail either amending the NPT (a difficult process with a very problematic outcome since to be bound a state would have to go through the treaty amending process that could have outcomes not dissimilar from what transpired with the CTBT in the United States) or negotiating and bringing into force new legally binding obligations. An example of the latter is President Bush's February 11 initiative that would call upon the NSG to draw a line regarding further transfers of sensitive nuclear technology and effectively placing the vast majority of NSG members in a new category entailing denial to those technologies in the future. This would be a very problematic approach reminiscent of the Carter administration effort to bring a halt to reprocessing not just for others but for the US as well – an initiative that created considerable tension between the United States and many of its allies and ultimately had to be walked back.

Perhaps the lesson to draw from this is that going down the path of denial without adequate incentives is a path not to be taken. It also puts the emphasis on incentives that would attract others to a particular course of action. In terms of multinationalization of certain fuel cycle activities it is arguable that an arrangement that embraced all states, not just a class of states, would have a better chance of success- i.e. an approach that involved the existing technology holders for uranium enrichment and that brought them under the same regime as others. This could be done by offering inward investment in existing facilities to states that would (a) provide them with priority assurance of supply of low enriched uranium on a timely basis and at competitive market prices; and (b) give them a formal legal relationship to the enterprise involving membership on the entity board of directors with voting rights on such matters as general policy, pricing, investment strategy, and a right to share in corporate profits. In exchange, and to support nonproliferation objectives, states that entered into such arrangements would formally

and verifiably foreswear developing enrichment on a national basis whether by the technology involved in the multinational enterprise or any other technology. In so far as the enterprise itself was concerned, investing states would limit their role to oversight, general policy, and management, but not be involved in operations or have access to the technology being used. On the other hand, the technology holder would be placing itself under a legal arrangement that brought a multinational dimension to its activities with formal responsibilities to its partners and a sharing of management and decision-making.

De facto approaches to the problem could focus on assurance of nuclear supply. That could be achieved in a variety of ways ranging from measures to reinforce the existing global enrichment market to the establishment of consortia of nuclear fuel suppliers now predominating the international market that would provide concurrent assurances on the consistency of supply on a timely basis for states foreswearing national enrichment and reprocessing, to the instituting of a nuclear fuel bank or banks. These could include establishing an IAEA bank of low enriched uranium (along lines envisioned in President Eisenhower's Atoms-for-Peace proposal) to be available whenever the market could not effectively respond on a timely basis to a fuel requirement and/or a regional or even national bank that would function as does the strategic petroleum reserve. **Fuel banks could consist of low enriched uranium resulting from further blending down of highly enriched uranium withdrawn from existing nuclear weapon stockpiles thus contributing to nuclear disarmament objectives while not disturbing the normal marketplace.**

De facto approaches have two advantages: on the one hand they address most of the concerns that could arise with respect to assurance of supply; on the other they put states that are reluctant to forego national sensitive fuel cycle activity in the position of having to provide a politically credible reason to other states as to why they have to pursue a full national nuclear fuel cycle. There may be reasons in some cases, including the existence of a large national nuclear program that itself justifies a degree of self-sufficiency, or a failing market, or rapid growth in nuclear power plants and inadequate sources of fuel supply. In such situations, however, the case could be made for placing any new fuel cycle facility in an international/multinational framework. The argument for

this would be very strong if existing technology holders already had established such a framework and subscribed to it themselves, and very weak if that were not the case.

List of published studies and papers
All papers and studies are available as pdf-files at the Commission's website: www.wmdcommission.org

No 1 "Review of Recent Literature on WMD Arms Control, Disarmament and Non-Proliferation" by Stockholm International Peace Research Institute

No 2 "Improvised Nuclear Devices and Nuclear Terrorism" by Charles D. Ferguson and William C. Potter

No 3 "The Nuclear Landscape in 2004: Past Present and Future" by John Simpson

No 4 "Reviving the Non-Proliferation Regime" by Jonathan Dean

No 5 "Article IV of the NPT: Background, Problems, Some Prospects" by Lawrence Scheinman

No 6 "Nuclear-Weapon-Free Zones: Still a Useful Disarmament and Non-Proliferation Tool?" by Scott Parrish and Jean du Preez

No 7 "Making the Non-Proliferation Regime Universal" by Sverre Lodgaard

No 8 "Practical Measures to Reduce the Risks Presented By Non-Strategic Nuclear Weapons" by William C. Potter and Nikolai Sokov

No 9 "The Future of a Treaty Banning Fissile Material for Weapons Purposes: Is It Still Relevant?" by Jean du Preez

No 10 "A Global Assessment of Nuclear Proliferation Threats" by Joseph Cirincione

No 11 "Assessing Proposals on the International Nuclear Fuel Cycle" by Jon B. Wolfsthal

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