

## Iran and the Nuclear Fuel-cycle

MICHAEL SPIES

### RECOMMENDATIONS OF THE WMD COMMISSION

**Recommendation 3:** To enhance the effectiveness of the nuclear non-proliferation regime, all Non-Proliferation Treaty non-nuclear-weapon states parties should accept comprehensive safeguards as strengthened by the International Atomic Energy Agency Additional Protocol.

**Recommendation 6:** Negotiations must be continued to induce Iran to suspend any sensitive fuel-cycle-related activities and ratify the 1997 Additional Protocol and resume full cooperation with the International Atomic Energy Agency in order to avoid an increase in tensions and to improve the outlook for the common aim of establishing a Middle East zone free of weapons of mass destruction. The international community and Iran should build mutual confidence through measures that should include: reliable assurance regarding the supply of fuel-cycle services; suspending or renouncing sensitive fuel-cycle activities for a prolonged period of time by all states in the Middle East; assurances against attacks and subversion aiming at regime change; and facilitation of international trade and investment.

**Recommendation 8:** States should make active use of the IAEA as a forum for exploring various ways to reduce proliferation risks connected with the nuclear fuel cycle, such as proposals for an international fuel bank; internationally safeguarded regional centres offering fuel-cycle services, including spent-fuel repositories; and the creation of a fuel-cycle system built on the concept that a few 'fuel-cycle states' will lease nuclear fuel to states that forgo enrichment and reprocessing activities.

Iran's standoff with the West over its uranium enrichment program has brought the risks associated with the nuclear fuel-cycle to the forefront of the international agenda. The Iran situation underscores a fundamental problem with the NPT, namely its near absolute guarantee on the right to develop nuclear technology. The delicate balance between the rights and obligations

of NPT states parties ultimately limits verification and enforcement of the treaty. This unstable situation has led many to question the efficacy of the safeguards and level of confidence provided by the International Atomic Energy Agency (IAEA).

*Weapons of Terror* observes that the lack of a standing executive body or secretariat within the NPT framework presents a serious institutional deficit, hampering efforts to enforce nuclear non-proliferation norms.<sup>1</sup> The WMD Commission recognizes that the risks associated with the proliferation of nuclear fuel-cycle technology are not exclusive to the Iran situation, but represent a global problem necessitating a global solution. However, the Commission does not suggest what that solution should be, and goes only as far as advocating that various proposals should be considered within the context of the IAEA.<sup>2</sup> In our view, the best course is to seek to end the spread of new national nuclear fuel production facilities, and to phase out existing non-international facilities, including in the weapon-possessing states.

The international community faces a situation in which a state has been found to be in non-compliance with requirements of the nuclear non-proliferation regime.<sup>3</sup> International inspectors have chronicled an 18 year history of reporting violations and clandestine nuclear activities in Iran related to the development of nuclear fuel-cycle technologies.<sup>4</sup> For many states these findings have led to an absence of confidence in the exclusively peaceful nature of Iran's nuclear program. Despite these findings and concerns that it is secretly pursuing nuclear weapons, Iran forges ahead with plans to develop a full indigenous nuclear fuel-cycle.<sup>5</sup> The example of Iran underscores problems inherent in the NPT framework and in the use and spread of nuclear power. Therefore, in order to prevent the inevitable reoccurrence of such crises in the future, the present situation with Iran should be used as impetus toward addressing the shortcomings of the NPT regime in all its aspects, based on the principles of non-discrimination and undiminished physical, energy and economic security for all.

### ***The Inalienable Right to Nuclear Technology***

Throughout the latent crisis over its nuclear program, Iran has adamantly asserted that its development of uranium enrichment capabilities is part of its "inalienable right to nuclear technology for peaceful purposes," guaranteed by Article IV of the NPT. The NPT attempts to balance the rights and obligations of non-nuclear-weapons states parties. Article IV.1 provides that:

Nothing in this Treaty shall be interpreted as affecting the 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.

Article IV is interpreted to allow all states to develop the full nuclear

fuel-cycle without restriction.<sup>6</sup> It is crucial to note that it is *not* a right *granted* by the NPT, but rather a right inherent in state sovereignty and *recognized* by the NPT, subject to the obligation not to “manufacture” nuclear weapons. The WMD report cautions against selective reinterpretation of Article IV that would restrict or deny the right to the nuclear fuel-cycle. This would create a world split between nuclear “haves” and “have-nots,” a position the Commission notes “would hardly get broad support” from the international community.<sup>7</sup> As discussed in section 3.1, any civilian nuclear fuel-cycle facility can be also used to produce nuclear material for nuclear weapons. Thus any state pursuing an advanced nuclear fuel-cycle capacity also attains the capacity to produce material for a nuclear arsenal.<sup>8</sup> However, the strong language in Article IV directly limits the scope of verification and enforcement measures permitted by the treaty, and supports a right to develop an industrial nuclear capacity up to the threshold of nuclear weapons status.

The necessity of maintaining balance between the rights and obligations of states parties presents great difficulty in matters of compliance assessment and enforcement. These concerns translate into an extensive gray area between peaceful and non-peaceful activities in circumstances of safeguards and treaty violations. By the terms of Article IV, for a non-nuclear weapon state party, the right to nuclear technology only becomes forfeit if the state has violated Article II, which prohibits manufacture of nuclear weapons.<sup>9</sup> The safeguards provided for in Article III, and which form the backbone of verification and compliance assessment under the NPT, only indirectly verify compliance with the Article II obligation. These safeguards deal exclusively with the disposition of nuclear materials, creating obligations beyond barring the acquisition of weapons, applicable only to the non-nuclear weapons states parties. Based on the text of the NPT, it can be and is argued that a state like Iran that violates safeguards requirements in material and ongoing ways by not reporting nuclear activities does not jeopardize its Article IV rights so long as there is no uncertainty about whether nuclear materials have been diverted to weapons programs.

### **Verifying Article II of the NPT**

Article II of the NPT provides:

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 of control over such weapons or explosive devices directly, or indirectly; not to manufacture or otherwise acquire nuclear weapons or other nuclear explosive

Continued on next page

devices; and not to seek or receive any assistance in the manufacture of nuclear weapons or other nuclear explosive devices.

During the negotiation of the NPT, some parties remarked that the terms “manufacture” and “acquire” suggest a completed nuclear explosive device. If this interpretation were accepted it would allow non-nuclear weapons states to construct all the parts of a nuclear explosive without assembling the finished device, while remaining within the bounds of the treaty.<sup>1</sup> Regardless of the lack of a definitive interpretation of “manufacture,” the prevailing interpretation of Article II is that the many activities a state must undertake to eventually construct a nuclear explosive, thereby indicating non-compliance with Article II, would necessarily involve violation of specific provisions in Article III.<sup>2</sup>

During the 2005 NPT Review Conference the U.S. delegation noted, “in an extreme case, an NPT party might have manufactured an entire mockup of the non-nuclear shell of a nuclear explosive, while continuing to observe its safeguards obligations on all nuclear material.”<sup>3</sup> U.S. representative Jackie Sanders suggested a list of activities of concern which would indicate an “intent” to manufacture a nuclear weapon in violation of Article II. These activities 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>4</sup>

Despite the reasonable case for the need of criteria to assess compliance with Article II, as discussed in this section, the inherent nature of nuclear energy, the balance of rights and obligations in the NPT, and the particular circumstance and purpose of any given nuclear program are serious obstacles to straightforward compliance assessment. It is conceivable for a state to engage in the activities listed above without necessarily driving toward acquiring nuclear weapons. The same fuel cycle facilities used in a civilian program, which all states are entitled to pursue under the NPT, can be used in a weapons program. The criteria suggested by Sanders appear

Continued on next page

largely geared toward the specific case of Iran and its nuclear program. Thus, these criteria may not represent an attempt to elucidate a definitive and universal interpretation of Article II, but rather an attempt to advance U.S. policy against Iran.

- 
- 1 Mohamed I. Shaker, *The Nuclear Non-Proliferation Treaty: Origin and Implementation*, Oceana Publications, London, 1980, p. 250.
  - 2 *Id.*, p. 251.
  - 3 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. Online at <http://www.reachingcriticalwill.org/legal/npt/RevCon05/MCI/USA19.pdf>.
  - 4 *Id.*

This argument could be undermined by a broad interpretation of a provision of the Principles and Objectives for Non-Proliferation and Disarmament adopted by NPT states parties in connection with the indefinite extension of the NPT in 1995:

Particular importance should be attached to ensuring the exercise of the inalienable right of all the parties to the Treaty and to develop research, production and use of nuclear energy for peaceful purposes without discrimination and in conformity with articles I, II *as well as III* of the Treaty.<sup>10</sup>

The Principles and Objectives are regarded as “political,” not “legal” commitments, but nonetheless provide guidance as to how the NPT should be implemented and interpreted under Article 31 of the Vienna Convention on the Law of Treaties. Furthermore, this provision was reaffirmed in the Final Document of the 2000 NPT Review Conference.<sup>11</sup> However, the standing of the Principles and Objectives and the 2000 Final Document has been eroded by the failure of the weapon states, in particular the United States, to fulfill disarmament-related commitments recorded in those same documents. Yet the United States has been the main proponent of the contention that Iran has forfeited Article IV rights due to its violation of safeguards reporting requirements, although without relying on the 1995 and 2000 outcomes.<sup>12</sup>

### ***The Limitations of Compliance Assessment and Enforcement***

For each state implementing safeguards the IAEA annually certifies that

no declared nuclear material have been diverted to military use.<sup>13</sup> The conclusion that no diversion has occurred establishes that the state in question is in compliance with its basic safeguards undertaking to not divert nuclear material to non-peaceful purposes. Such a conclusion further indicates that the state is in compliance with its obligation under Article III of the NPT to apply and follow safeguards procedures. For states that implement the Additional Protocol, the IAEA annually certifies the absence of undeclared nuclear materials or activities.<sup>14</sup> Drawing the conclusion for the first time that there are no undeclared nuclear activities takes a great deal of time for all states in any circumstance, as the IAEA has remarked in its assessments of Iran's safeguards status.<sup>15</sup> As an example, Japan's additional protocol entered into force in 1999, yet the IAEA confirmed the absence of undeclared nuclear activities in Japan for the first time in 2003.<sup>16</sup> As of the latest annual IAEA Safeguards Report, of the 70 states where both the NPT safeguards and the additional protocol are implemented, in only 24 of these states has the IAEA concluded the absence of undeclared nuclear activity.<sup>17</sup>

The IAEA safeguards compliance assessment mechanism is diffused and spread out among the various organs of the Agency. If, during the course of their verification activities, the Agency's inspectors determine that nuclear material has been diverted to use in weapons or other unknown use, they are obligated to notify the Director General who in turn submits a report to the Agency's Board of Governors. Per its authority under the Safeguards Agreement, the IAEA Board may report a state to the Security Council only if it finds that, based on the report from the Director General, it cannot be assured that the state has not diverted nuclear material for non-peaceful purposes.<sup>18</sup> This provision makes clear that the only relevant consideration behind a finding of non-compliance, in the context of safeguards, is the diversion of nuclear materials for military purposes. Any other breach of the safeguards agreement can only amount to non-compliance as far as it affects the Board's ability to verify there has been no diversion.

The WMD Commission observes that "the NPT is the weakest of the treaties on WMD in terms of provisions about implementation."<sup>19</sup> Except for the general Article IV stipulation that the rights of states to develop nuclear technology is contingent on their compliance with Articles I and II, measures for effective enforcement are lacking from the NPT, the safeguards system, and the IAEA Statute. The NPT lacks a standing secretariat or any other body with the competence to assess compliance with the treaty's objectives. Furthermore, the Commission notes "the IAEA and its Board of Governors are not the secretariat of the treaty," and its authority is thus limited to overseeing safeguards, not compliance with the NPT.<sup>20</sup> As noted, the IAEA Board of Governors does have the limited power of denying states assistance and rights and privileges as members of the IAEA system (*see box*).

The NPT states parties meet only every five years to review the implementation of the treaty. As the WMD Commission notes, "the NPT has no provisions for consultations or special meetings of the parties to consider

cases of possible non-compliance or withdrawal.”<sup>21</sup> If states could find the means to avoid the usual procedure of consensus, the states parties could condemn non-compliant states and call upon all states to apply sanctions. Although such an approach is not expressly provided for in the NPT, as it is in the Chemical Weapons Convention, it arguably falls within the discretion of NPT states parties acting collectively. However, there have been no such actions to date, nor have there been efforts to take such actions.

Thus, at present it falls to the UN Security Council to take up the issue of compliance enforcement. The Council has the power, granted by the UN Charter, not only to call for sanctions, but to require states to apply them. It can also authorize or direct the use of military force to enforce its decisions. However, the mandate of the Council is traditionally understood to limit its authority to situations that present or may lead to a threat to international peace and security. As further explained in section 1.2, while the Council remains the backstop of the non-proliferation regime, the NPT states parties should develop mechanisms for effectively addressing non-compliance issues. In particular, there is a need for a mechanism to deal with violations that do not rise to the level of a threat to the peace. But the development of such measures will require trust that could only be generated by compliance with disarmament requirements on the part of the world’s most powerful states.

### **Authority and Limitations of the IAEA Board**

On the matter of enforcement the IAEA Board only has very limited authority to proactively respond to actual or suspected cases of non-compliance involving the diversion of nuclear materials. Under the Safeguards Agreement the Board may *call upon* a state to take immediate action, when it deems such steps are necessary to prevent the diversion of nuclear material.<sup>1</sup> Yet, such a call would not be legally binding. If a state fails to heed a such a call, the Board would be left to its own judgment, based upon the report of the Director General, to determine whether or not it is “able to verify that there has been no diversion of nuclear material.”<sup>2</sup>

If the Board is unable to determine there has been no diversion, in addition to reporting the matter to the UN Security Council, it may *call upon* the state to take corrective measures. If the non-compliant state fails to enact the corrective actions called for, the Board may either suspend any assistance to the state or suspend the state “from the exercise of the privileges and rights of membership” under the IAEA Statute.<sup>3</sup>

Separately, Article III.B.4 of the Statute provides that “if in connection with the activities of the Agency there should arise ques-

Continued on next page

tions that are within the competence of the Security Council, the Agency shall notify the Security Council, as the organ bearing the main responsibility for the maintenance of international peace and security.” While this provision does not require a finding of non-compliance with safeguards, its proper application would naturally be interpreted in light of the Safeguards Agreement and other provisions of the IAEA Statute. Thus any basis for reporting a matter to the Security Council, other than diversion or uncertainty, would require justification.

As we have seen in the matter of Iran, the Board has some innovative potential to enact coercive measures in response to cases of concern that do not involve diversion of nuclear materials. Specifically, in deciding whether to approve any request made by a member state for a technical cooperation project, the Board may consider any such matter it may deem relevant, a catch-all phrase that in effect leaves the matter entirely to the conceivably arbitrary judgment of the Board.<sup>4</sup> Though such a mechanism could easily be susceptible to political abuse, it gives the Board some leverage over member states by allowing it to obstruct a key membership privilege, provided it makes some justification that is reasonable enough to secure a majority vote.

In cases where a state has persistently violated the provisions of the Statute or conditions related to a project, but that do not involve diversion, it is also possible for the Board to vote by simple majority to recommend for a state to have its member rights and privileges suspended.<sup>5</sup> In order to enact the suspension, the General Conference, consisting of the entire membership of the IAEA, which meets only once a year in the fall, would have to approve the measure by a two-thirds vote.

---

1 INFCIRC/153, paragraph 18.

2 *Id.*, paragraph 19.

3 IAEA Statute, Article XII.C.

4 *Id.*, Article XI.E.7.

5 *Id.*, Article XIX.B.

### *The Case of Iran*

The steady escalation of the Iran nuclear situation began in fall 2005. After two years of ineffectual negotiations between Iran and the E3 (France, Germany, UK) intended to achieve a political solution, Iran broke from the



negotiations and resumed uranium processing work. In September 2005 the IAEA Board responded by adopting a resolution finding “that Iran’s many failures and breaches of its obligations to comply with its NPT Safeguards Agreement, as detailed in [IAEA document] GOV/2003/75, constitute non compliance in the context of Article XII.C of the Agency’s Statute.”<sup>22</sup>

*Stretching the law and squandering diplomacy.* The language of the Board’s finding is not consistent with the IAEA Statute. A finding of non-compliance, as the term is used in Article XII.C, pertains to circumstances when nuclear material provided in an Agency project has been diverted for military purposes, for health and safety violations, or any other condition of an Agency project proscribed by agreement. Although Iran has several ongoing projects with the IAEA, including assistance in preparations for the nuclear power plant at Bushehr, the IAEA has not accused Iran of diverting nuclear material from any project. Nor has it been accused of any safety and health violations or of any other infraction of any condition stipulated in any agreement pertaining to an IAEA project. Therefore, the finding of non-compliance made by the Board is vague and has no basis in the IAEA Statute.

Furthermore, the Board’s finding that Iran’s policy of concealment “resulted in many breaches of its obligation to comply,” with its Safeguards Agreement, based on an 18 year history of safeguards reporting violations by Iran, does not satisfy the criteria in the Safeguards Agreement allowing for the Agency to report the matter to the UN Security Council.<sup>23</sup> Iran’s Safeguards Agreement provides that the Board may report a matter to the Security Council only if it finds that, based on the report from the Director General, “it cannot be assured that Iran has not diverted nuclear material for non-peaceful purpose.”<sup>24</sup> In fact, the Director General reported to the Board in November 2004, and again in September 2005, that *all declared nuclear activities and material in Iran had been accounted for and therefore there has been no diversion of material to unknown use or use in weapons.*<sup>25</sup>

The resolution was on firmer ground in the second reason given as a basis for reporting the matter to the Security Council.<sup>26</sup> Using language from Article III of the IAEA Statute, the resolution stated that the Board:

Finds also that the history of concealment of Iran’s nuclear activities referred to in the Director General’s report, the nature of these activities, issues brought to light in the course of the Agency’s verification of declarations made by Iran since September 2002 and the resulting absence of confidence that Iran’s nuclear programme is exclusively for peaceful purposes have given rise to questions that are within the competence of the Security Council, as the organ bearing the main responsibility for the maintenance of international peace and security;<sup>27</sup>

However, it was the first finding regarding non-compliance, not the second, that has been emphasized as the basis for referring the matter to the

Security Council.

Despite the questions surrounding the “non-compliance” finding, it is clear that, at the very least, Iran’s concealment of activities resulted in violations of its Safeguards Agreement. Absent evidence of a weapons program, which the IAEA has not uncovered to date, and absent the diversion of nuclear materials, it remains difficult to argue that Iran has forfeited its rights under Article IV of the NPT. Nonetheless, when Iran’s pattern of concealment of nuclear activities came to light in 2003 a case could have been made that Iran should have been denied the right to pursue enrichment or reprocessing capabilities until it had regained the trust of the world. The case is strengthened by the commitment made by NPT states parties in 1995, and reaffirmed in 2000, to make the obligation of all states to implement the Article IV rights contingent on compliance with Article III. However, that was not the path taken. Instead the EU undertook negotiations with Iran intended to achieve “objective guarantees that Iran’s nuclear programme is exclusively for peaceful purposes” and to “equally provide firm guarantees on nuclear, technological and economic cooperation and firm commitments on security issues.”<sup>28</sup> Iran had agreed to suspend its enrichment and reprocessing activities on a voluntary, non-legally binding basis throughout the duration of the now-defunct negotiations.

For its part Iran had offered to accept an extremely intrusive safeguard and verification regimen, far beyond what is required by the Additional Protocol. Iran’s March 23, 2005 offer to the EU included the continuous on-site presence of IAEA inspectors at its nuclear fuel-cycle sites, ceilings on the level of enrichment, limiting the extent of its fuel-cycle to only the needs of its power reactors, and binding national legislation prohibiting the development of nuclear weapons.<sup>29</sup> In Iran’s estimation these provisions would have been sufficient to objectively guarantee the peaceful nature of its nuclear program. However, as a necessary condition to maintain the support for the United States in the negotiating effort, the only objective guarantee acceptable to the E3 states was the complete cessation of all fuel-cycle activities in Iran.

*Suspension and sanctions.* The on and off negotiations between Iran and the EU continued from the summer of 2005 until September 2006. Balking at Iran’s request to be allowed until August 22, 2006 to respond to an EU proposal put forward on June 6 by the permanent members of the UN Security Council and Germany, in July the Security Council passed resolution 1696 (2006), which *demand*s “that Iran shall suspend all enrichment-related and reprocessing activities, including research and development.”<sup>30</sup> The language of this resolution signifies a departure from the traditional means by which the Security Council makes its decisions binding.<sup>31</sup> Regardless, there is no doubt that the intention of the resolution was to make mandatory Iran’s suspension which had been previously regarded as a voluntary, non-legally binding, confidence building measure.

Nearly four months after Iran failed to heed the UN Security Council demand in resolution 1696 that it suspend its uranium enrichment activities,

on December 23 the Security Council adopted resolution 1737 (2006) imposing limited sanctions on nuclear proliferation-sensitive activities in Iran.<sup>32</sup> The thrust of the resolution is to halt Iran's uranium enrichment and heavy water projects.<sup>33</sup> Like the previous resolution targeting Iran's nuclear program, the approach taken in resolution 1767 departs from the norms by which the Security Council traditionally invokes its powers to respond to threats to international peace. Notably, the resolution makes no finding that the Iran situation constitutes a threat to international peace, a requisite for Security Council to either impose sanctions or employ military force. This approach can be seen as precluding any possibility of authorizing the use of force, a reaction to the U.S. abuse of past UN resolutions in justification of its illegal invasion of Iraq. Also, this novel approach allows the Council to avoid making the arguably absurd assertion that Iran's still primitive nuclear fuel-cycle program presently constitutes a threat to the peace.<sup>34</sup>

The issue of suspension has become somewhat of a red herring, a contentious point around which this situation has been escalated. In the view of the IAEA, a pilot scale enrichment facility in Iran poses an acceptable nuclear weapons proliferation risk. Moreover, Iran remains several years away at best from being in the position to begin constructing an industrial scale enrichment capacity. While the suspension or cessation of fuel-cycle activities might help to reduce international tension on this matter, it is not necessary for the completion of the IAEA investigation into Iran's past nuclear activities or for the IAEA to assess Iran's compliance with its safeguards obligations. As an apparent afterthought, resolution 1737 requires Iran to "provide such access and cooperation as the IAEA requests to be able to ... resolve all outstanding issues."<sup>35</sup> However, the primary focus of the Security Council has centered on the issue of suspension, making it the sole condition for which sanctions might be lifted.<sup>36</sup>

In the April 2006 Safeguards Report on Iran, the IAEA made the unusual effort to stress that "safeguards obligations and confidence building measures are different, distinct and not interchangeable."<sup>37</sup> The report further states that "the implementation of confidence building measures," the focus of Security Council action, "is no substitute for the full implementation at all times of safeguards obligations."<sup>38</sup> The IAEA thus suggested that the confidence building measures are not as important as the safeguards, the object of which is to prevent the diversion of nuclear materials to military use.

In the same paragraph the IAEA states that "in this context, it is also important to note that the Agency's safeguards judgements and conclusions in the case of Iran, as in all other cases, are based on verifiable information available to the Agency, and are therefore, of necessity, limited to past and present nuclear activities. The Agency cannot make a judgement about, or reach a conclusion on, future compliance or intentions."<sup>39</sup> The subtext of this statement is that while Iran can be in full compliance with its safeguards obligations, states can still point to its activities as revealing dubious intentions. Although it is not mentioned, such suspicions are inherent in the

utilization of nuclear energy and the operation of nuclear fuel-cycle facilities. Thus Iran's critics will always be able to say its nuclear program *could* be for weapons, despite whatever conclusions the agency derives. This last point is also true for *every* state that operates nuclear fuel-cycle facilities.

*Time for negotiation.* There are tendencies, especially in Washington, to regard the Iran situation as extremely urgent. While certainly there are important issues at stake, with respect to Iran and to the non-proliferation regime generally, the urgency is overstated. If Iran were to make the political decision to acquire a nuclear weapon, U.S. governmental and non-governmental analysts believe Iran would need a minimum of three to five years in order to produce sufficient nuclear material for a single weapon.<sup>40</sup> The Director of U.S. National Intelligence, John Negroponte, recently stated that he believes Iran could develop a nuclear weapon between 2010 and 2015, up to ten years away.<sup>41</sup> There is still time for all sides to work toward a mutually acceptable diplomatic solution.

At such a stage, talk of broad economic sanctions and escalation is premature. Given the non-urgency of the matter one must look skeptically upon those who have forcefully advocated and insisted upon such a course, setting aside and even hindering the process of negotiation. The tools of coercion and pressure have not proven to be reliable in modifying the behavior of states, particularly on issues central to security. The WMD Commission places the emphasis on inducements to persuade Iran not to pursue a nuclear fuel-cycle capability, and makes the innovative suggestion that a regional freeze on enrichment and reprocessing activities, which would also capture Israel's program, could be part of the solution.

As much as the Bush administration adamantly attempts to portray the matter as a dispute between Iran and the international community, underlying this crisis is the long-simmering tension and mistrust between the United States and Iran. Over the course of the nuclear crisis Iran has offered to address a very wide range of mutual social, political, economic and security concerns including all aspects of its nuclear program and its support for so-called terrorist organizations. The time is more than past due for the U.S. to set aside its grandiose regional ambitions, especially in light of the ongoing debacle in Iraq. Progress on these issues requires the U.S. to engage the Iranian regime in direct negotiations and to be willing to set normalization of relations and security assurances on the table in exchange for the policies it presently demands.

### The U.S.-North Korea Stalemate

North Korea's test of a nuclear explosive device on October 9, 2006 shocked the world, prompting overdue attention to the challenge posed to the non-proliferation regime by its nuclear program and the longstanding hostile relationship between North Korea and the United States. The history of the North Korea nuclear issue demonstrates that coercion and non-engagement do not constitute viable non-proliferation strategies.

North Korea joined the NPT in 1985, but held off on concluding its mandatory safeguards agreement with the IAEA, due in part to the continued presence of U.S. nuclear weapons stationed in South Korea. The end of the Cold War provided a series of opportunities for the revitalization of relations on the Korean peninsula. In September 1991, the U.S. unilaterally withdrew its nuclear weapons from the South.<sup>1</sup> By early 1992, the two Koreas had signed the Joint Statement for the Denuclearization of the Korean Peninsula, pledging to "not test, manufacture, produce, receive, possess, store, deploy or use nuclear weapons," prohibiting both sides from possessing uranium enrichment and plutonium reprocessing facilities, and agreeing to safeguards.<sup>2</sup>

Despite these early and strained diplomatic successes, the underlying political relationships between the primary antagonists, the United States and North Korea, remained largely unchanged. Since the 1950s, the two sides have persisted in a state of near-war, with the United States maintaining a stance of possible nuclear response to a North Korean *non-nuclear* attack.<sup>3</sup> In light of this ongoing political reality, it should have come as no surprise that the illusion of progress was quickly dispelled. In April 1992, nearly five years past the deadline provided for in the NPT, North Korea finally concluded its safeguards agreement with the IAEA, leading almost immediately to the discovery that it had produced and separated more plutonium than it had declared.<sup>4</sup> The 1994 Agreed Framework, signed by the United States and North Korea, emerged directly out of this safeguards crisis—prompting the involvement of the UN Security Council and the possibility of war—and represents the first attempt to address the underlying political issues in the nuclear context.

Just as the path toward the global elimination of nuclear weapons has been well mapped (*see sections 1.2 and 3.3*), the steps necessary for a permanent solution to the stalemate on the Korean peninsula have been long established. The failure to achieve this has been due to the breakdown in implementation. The Bush administration has

Continued on next page

played the role of the spoiler, immediately working to undermine and abandon the 1994 Agreed Framework, ending diplomatic engagement, and unilaterally ratcheting up pressure on the North Korean economy in the vain hope that isolating the regime—really the entire country—will somehow cause its collapse. This same approach has failed elsewhere and has now resulted in the worst of possible outcomes: a North Korean regime with a proven nuclear weapon capability.

Worse, the Bush administration's belated and sometime incoherent diplomatic overtures have been marred by disassociated, ongoing, and aggressive attempts to isolate North Korea from the international economy. Most notably, a mere four days after the Six-Party Talks resulted in agreement in principle on denuclearization of the Korean peninsula in September 2005,<sup>5</sup> the administration took action against the North Korean banking sector,<sup>6</sup> setting back diplomacy on the nuclear issue for more than a year.<sup>7</sup> Despite the administration's claims that such actions are legal in nature and bear no relation to the nuclear issues or broader policy toward North Korea, it seems highly unlikely these acts have been driven by some newly found respect for upholding international norms on the part of the administration. More plausible explanations include the existence of an internal split within the administration, or more benignly, poor policy coordination. Regardless of the rationale, the move underscores a marked lack of seriousness regarding the diplomatic initiative.

Overcoming the diplomatic impasse, in February 2007 the Six-Party Talks achieved a long sought agreement on the implementation of the 2005 Joint Statement. Largely dealing with issues of the sequencing of the steps required by each of the parties, many commentators have noted the striking similarity between these measures and those contained in the 1994 Agreed Framework. The administration's first step forward toward a diplomatic solution has been to reinvent the same deal it rejected six years earlier. After years of belligerent rhetoric and grudging engagement did little to prevent North Korea's acquisition of nuclear weapons, this agreement represents a clear repudiation of the Bush administration's policies on North Korea since 2001.

Despite this laudable interim achievement, the difficult steps lie ahead. Implementation of the 2005 Joint Statement and the ultimate goal of achieving the denuclearization of the Korean Peninsula are not certain. Moreover, while the statement contains many positive elements, such as requiring North Korea to verifiably dis-

Continued on next page

mantle only its plutonium production capability within 60 days and obligating the U.S. to participate in a bilateral process, leading to the restoration of diplomatic relations and working toward the normalization of relations, it could go farther. The WMD Commission soundly recommends a revival of the 1992 declaration, which would establish the Korean Peninsula in essence as a zone free of nuclear fuel cycle facilities (paralleling the Commission's proposal for a freeze on such activities in the Middle East). Toward achieving lasting regional security, non-governmental organizations in the region have called for a nuclear weapon free zone treaty among Japan, South Korea, and North Korea with assurances against use of nuclear weapons given by the United States, China, and Russia.<sup>8</sup>

- 
- 1 Hans M. Kristensen, "The Withdrawal of U.S. Nuclear Weapons From South Korea," The Nuclear Information Project, September 28, 2005.
  - 2 Joint Statement for the Denuclearization of the Korean Peninsula, Seoul and Pyongyang, January 20, 1992.
  - 3 Hans M. Kristensen, "U.S. Nuclear Strike Planning Against North Korea," The Nuclear Information Project, September 28, 2005 (updated November 3, 2006).
  - 4 International Atomic Energy Agency, excerpted from: David Fischer, *History of the International Atomic Energy Agency*, IAEA, Vienna, 1997.
  - 5 Joint Statement of the Fourth Round of the Six-Party Talks, Beijing, September 19, 2005.
  - 6 See Selig Harrison, "Is Kim Jong Il ready to provoke a regional crisis? An exclusive account of what Pyongyang really wants," *Newsweek International*, October 16, 2006.
  - 7 Paul Kerr, "No Progress at North Korea Talks," *Arms Control Today*, January/February 2007.
  - 8 "Model Treaty on the Northeast Asia Nuclear Weapon Free-Zone," Peace Depot, July 2004.

### ***Closing the Nuclear Fuel-cycle Loophole***

As more countries are anticipated to develop nuclear power sectors, the need for nuclear fuel-cycle services will continue to grow. This will bring with it the likelihood that more states will seek enrichment and reprocessing capabilities, citing state sovereignty and Article IV as justifications. At the present time, while the UN Security Council deliberates on coercive measures intended to bring an end to Iran's nuclear fuel-cycle ambitions,

new commercial scale uranium enrichment projects have been announced in Argentina, Australia, and South Africa. Regarding the unchecked spread of these technologies, the U.S. National Security Strategy states, “the first objective requires closing a loophole in the Non-Proliferation Treaty that permits regimes to produce fissile material that can be used to make nuclear weapons under cover of a civilian nuclear power program.”<sup>42</sup>

The leaders in the charge to close this “loophole” have been the industrialized powers, notably those who operate nuclear fuel-cycle facilities and either possess nuclear weapons or permit the U.S. to house them on their national territories. Since the first use of nuclear weapons, there have been proposals made with the intent to control the spread of nuclear technology, beginning with the recommendations in the 1946 Acheson-Lilienthal report, calling for international ownership of the means of producing nuclear materials. The report recognized that nuclear weapons and nuclear energy are inextricably linked. It also prophetically predicted that an international system comprised solely of inspections would be insufficient, as detailed above and exemplified through the case of Iran.<sup>43</sup> Since the advent of “Atoms for Peace” numerous other proposals have been put forward for multinational control of the nuclear fuel-cycle, and have subsequently languished.

The WMD Commission takes no firm position on addressing the spread of nuclear fuel-cycle technology, calling only for the exploration, through the IAEA, of proposals for international fuel banks, regional fuel-cycle service centers, and restricting fuel production to a few powerful states. There are certainly no easy solutions to these problems. As the Commission indicates, it is not certain how to make fuel banks sufficiently reliable to states that have to plan for changing geopolitical circumstances.<sup>44</sup> Multilateralizing the fuel-cycle through regional centers still poses the risk of spreading knowledge about the technology. The final proposal, which the Commission surprisingly includes as one deserving consideration, would limit the possession of fuel-cycle facilities to those states that already possess them. Specifically referring to an initiative advanced by the Bush administration and known as the Global Nuclear Energy Partnership (GNEP), this approach would divide the world into “fuel-cycle states” and “user states,” that is, “nuclear haves” and “nuclear have-nots,” not with respect to weapons but rather nuclear fuel production. Regarding the possession of nuclear weapons, the Commission pointedly rejected “the suggestion that nuclear weapons in the hands of some pose no threat, while in the hands of others they place the world in mortal jeopardy,” further noting that “governments possessing nuclear weapons can act responsibly or recklessly” and that “governments may also change over time.”<sup>45</sup> Logically this argument should naturally extend to the possession of the means to readily manufacture nuclear weapons.

Putting aside specific institutional proposals, the best course would be for states to work toward less reliance on nuclear power for energy generation. Regardless of where these facilities are located they bring with them the fear and possibility of weapons proliferation and ultimately represent a for-



midable roadblock on the path to elimination of nuclear weapons. Preceding any global phase-out of nuclear power, states should seek to end the spread of new nuclear fuel production facilities, not under international control, and to phase-out existing non-international facilities, including in the weapon-possessing states.<sup>46</sup> Any global scheme that calls for the indefinite retention of the means to produce nuclear weapons by some, but prohibits their development by others, is doomed to fail. Moreover, many developing states, which have been generally more supportive of Iran's position, are wary of accepting additional constraints on the development of nuclear technology, at least absent demonstrable progress on nuclear disarmament issues. The connection between the 60 year failure to secure the nuclear fuel-cycle and the failure of nuclear disarmament initiatives in this context cannot be overstressed.

### *Recommendations for U.S. Policy*

- The United States should engage in direct negotiations with Iran and work toward achieving an agreement addressing the spectrum of political, economic, and security issues. Such negotiations should lead to a process resulting in the end of unilateral U.S. economic sanctions, the provision of credible security assurances by the United States, and preclusion of Iran's acquisition of nuclear weapons, and culminating in the normalization of relations between the two countries.
- The United States should work multilaterally toward cessation of the construction of additional nationally-controlled plutonium reprocessing and uranium enrichment facilities, and support the transfer of existing facilities, including its own, to international control.