



PROSPECTS FOR NON-PROLIFERATION AND DISARMAMENT

Proceedings of the International
Luxembourg Forum Workshop

VIENNA, 2010



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*УТВЕРЖДАЮ В ПЕЧАТЬ
Евсеев Владимир*

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The book contains proceedings of the International Luxembourg Forum Workshop (April 8-9, 2010, Vienna, Austria), which focused on prospects for non-proliferation and disarmament, as well as developments in the situation with the Iranian and North Korean nuclear programs and the Comprehensive Nuclear-Test-Ban Treaty. The most authoritative experts from different countries participated in the meeting. In addition to various reference materials, the appendices include the Memorandum adopted by the participants in the workshop. The publication is intended for experts on the subject, as well as for a wide readership.

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**ABOUT THE INTERNATIONAL
LUXEMBOURG FORUM
ON PREVENTING NUCLEAR
CATASTROPHE**

*УТВЕРЖДАЮ В ПЕЧАТЬ
Евсеев Владимир*

The International Luxembourg Forum on Preventing Nuclear Catastrophe was established pursuant to a decision of the International Conference on Preventing Nuclear Catastrophe held in Luxembourg on May 24-25, 2007. The Luxembourg Forum is one of largest non-governmental organizations bringing together leading, world-renowned experts on the non-proliferation of nuclear weapons and on arms reduction and limitation.

The Forum's priorities are:

- To counteract growing threats to the nuclear non-proliferation regime and erosion of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), including the escalating danger of nuclear terrorism and attempts by certain countries to gain access to nuclear materials and technologies. Particular attention is paid to the Iranian nuclear threat;
- To promote global peace and security through new approaches, and to make proposals to decision makers concerning practical solutions to critical issues of nuclear non-proliferation and arms control.

The Forum's principal guiding bodies are the International Advisory Council (IAC) and the Supervisory Council (SC).

The International Advisory Council is the Forum's main operating body, consisting of more than 40 leading experts from many countries. IAC members make proposals on the Forum's agenda, arrange the Forum's events and participate in drafting the Forum's final documents (dec-

larations, special statements, memoranda, etc.) to be circulated to top-tier politicians, heads of international organizations and public figures around the world.

The Supervisory Council is a team of prominent politicians, public figures and world-renowned scientists, including Hans BLIX, former Director General of the International Atomic Energy Agency (IAEA), William PERRY, former United States Secretary of Defense, Gareth EVANS, Co-Chair of the International Commission on Nuclear Non-proliferation and Disarmament and former Minister for Foreign Affairs of Australia, Rolf EKEUS, former OSCE High Commissioner on National Minorities, Sam NUNN, prominent U.S. politician and Co-Chairman of the Nuclear Threat Initiative, Roald SAGDEEV, Academician of the Russian Academy of Sciences and Director of the East-West Center at the University of Maryland, Nikolay LAVEROV, Vice President of the Russian Academy of Sciences, and Igor IVANOV, Professor at the Moscow State Institute of International Relations, former Russian Minister for Foreign Affairs and former Secretary of the Security Council of the Russian Federation. Members of the Supervisory Council advise on the activities of the Forum, a high-profile public entity aimed at strengthening peace and security.

The Forum is headed by its President, Viatcheslav KANTOR, Ph.D., a prominent public figure, international philanthropist, entrepreneur and investor. Mr. Kantor is President of the European Jewish Congress and leads many international public institutions. He has chaired the Organizing Committee of the Luxembourg Conference and greatly contributes to the work of the International Luxembourg Forum.

On March 26, 2008, IAEA Director General Mohamed ElBaradei received a visit from Alexei Arbatov and Vladimir Dvorkin, the plenipotentiary representatives of the Luxembourg Forum. During the meeting, ElBaradei, Arbatov and Dvorkin shared their opinions on the prospects for the 2010 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons. The Luxembourg Forum representatives conveyed their views to the Director General regarding the complex issues associated with the Iranian nuclear program and the prospects for a peaceful settlement through dialogue as provided for in the relevant United Nations

Security Council resolutions. Special attention was devoted to the need to strengthen the IAEA's system of safeguards, including comprehensive compliance by countries with the provisions of the Comprehensive Safeguards Agreements and their Additional Protocols, improved monitoring of the nuclear fuel cycle, including the possible creation of international nuclear fuel cycle centers, and the fulfillment of all relevant obligations of the States Parties to the NPT.

The IAEA Director General gave valuable advice, made a number of recommendations for the work of the Luxembourg Forum, and expressed support for its activities and readiness to cooperate informally in various spheres of mutual interest.

On April 14, 2008, a Forum Working Group meeting was held in Moscow. Following alarming developments in the Iranian nuclear program, the meeting focused primarily on possible political and diplomatic ways of addressing the issue.

As an outcome of the meeting, the workshop issued a memorandum providing a number of practical steps toward nuclear non-proliferation. Like the previous Luxembourg Conference Declaration, the memorandum was circulated to world leaders and the heads of major international organizations.

The next event took place in Rome on June 12, 2008, in the form of a Joint Seminar of the International Luxembourg Forum on Preventing Nuclear Catastrophe and the Pugwash Conferences on Science and World Affairs. The seminar was dedicated to the results and prospects of the Preparatory Committee for the 2010 NPT Review Conference.

The Supervisory Council of the International Luxembourg Forum met on December 9 in Moscow. Participants, who included William Perry, Hans Blix, Rolf Ekeus and Igor Ivanov, summed up the results of the organization's activities in 2008 and outlined plans and priorities for 2009. The session addressed the most urgent nuclear non-proliferation and international security issues, both worldwide and in challenging regions. On the previous day, December 8, Luxembourg Forum representatives met with Russian Foreign Minister Sergey Lavrov and Deputy Secretary of the Security Council of the Russian Federation Vladimir Nazarov.

The Forum continued its work in 2009. On April 22, a Working Group meeting took place in Moscow on the reduction of strategic offensive weapons and the prospects for the Preparatory Committee for the 2010 NPT Review Conference. On July 2, the Working Group held its next meeting in Geneva, with one session focusing on the results of the 2009 Preparatory Committee and prospects for the 2010 NPT Review Conference, and the other on the development of the situation surrounding the Iranian and North Korean nuclear and missile programs. In keeping with the Forum's traditions, final documents on the outcome of the meetings were agreed upon and adopted and then sent to world leaders and the heads of international organizations.

УТВЕРЖДАЮ В ПЕЧАТЬ
Евсеев Владимир



WELCOME ADDRESS

*УТВЕРЖДАЮ В ПЕЧАТЬ
Евсеев Владимир*



Viatcheslav KANTOR, Ph.D.

**President of the International Luxembourg Forum
on Preventing Nuclear Catastrophe (Russia)**

Ladies and gentlemen, friends and colleagues! We have met in Vienna not just because it is one of the world's most beautiful cities, but also because very few cities are so closely associated with concepts such as international security, disarmament and nuclear non-proliferation.

It is very important that, in addition to members of the Advisory Council of the Luxembourg Forum, experts from Vienna-based international organizations are participating in our meeting.

It is also significant that precisely on this day the presidents of Russia and the U.S. are signing the new strategic arms reduction treaty in Prague. The importance of this document goes beyond putting lower ceilings on the strategic forces of the two leading nuclear powers: the treaty has resumed the central process in nuclear disarmament that had actually been stalled over the past decade.

Credit is due to the political leaders, diplomats and military specialists of the two countries, who have reached agreement on the new full-scale START Treaty in a short period of time, beginning in May of last year.

Compared to START-1, the new Treaty cuts the number of nuclear warheads by almost three-fourths and that of carrier vehicles by half. This is a great stride forward by the two leading powers towards nuclear disarmament and compliance with their obligations under Article 6 of the Nuclear Non-Proliferation Treaty.

It is our common understanding that the main mission of our meeting is to bring our proposals and recommendations for a tighter nuclear non-proliferation regime to the attention of the organizers and participants of the Non-Proliferation Treaty Review Conference, which will take place in May.

Although important, the newly signed START Treaty is not enough to guarantee both the success of the May Conference and global and regional stability in general, and other important steps need to be taken.

The principal such steps are:

One. The legislatures of the U.S. and Russia should promptly initiate procedures to ratify the new Treaty, which has many opponents. The main difficulties can be expected primarily in the U.S.

The moment of truth in the near term is about what is going to be prioritized in debates on the new Treaty: concern about the fate of the nuclear non-proliferation regime and prevention of nuclear catastrophe or partisan differences.

Two. The leaders of the U.S. and Russia need to carry on consultations and negotiations to seek further accords on nuclear disarmament, primarily on the limitation and reduction of strategic and sub-strategic nuclear weapons.

Three. At this point Britain, France and China should assume obligations to freeze their nuclear force levels and apply confidence-building and transparency measures with regard to the status, location, conduct of exercises and other nuclear force characteristics like those that Russia and the U.S. have been using and will continue to use under the new START Treaty.

Four. The process of ratification and enactment of the Comprehensive Nuclear-Test-Ban Treaty should become a milestone event. Every nuclear power that has ratified the Treaty should provide all-round assistance to and full-scale support for the ratification of that Treaty by the U.S., China and other key states.

Five. The settlement of the Iranian and North Korean nuclear crises, which are badly stalled, would play a decisive role in the sustained progress of the NPT. The Iranian leaders blatantly ignore UN Security Council resolutions and questions asked by the International Atomic Energy Agency.

Any hopes for the resolution of the problem that arose last autumn were dashed by Tehran's arrogant and irresponsible actions and official statements.

Characteristically enough, over the past months talks with Iran focused primarily on the program for enriching uranium from 3.5 to 19.5 percent in Russia and France; everyone seems to have forgotten the need to press Iran to comply with the five UN Security Council resolutions demanding that uranium enrichment processes be totally suspended. Ultimately all this can amount to recognition of the full bankruptcy of the Security Council's authority.

Now it is practically clear that the further incremental escalation of sanctions in UN Security Council Resolutions will produce no effect. So far the policy of the leading powers has looked like the appeasement of the Nazi leaders before World War II.

A common stand by the five permanent UN Security Council members and new effective sanctions implemented to the full extent of Article 41 of the UN Charter alone leave some hope for a change in Tehran's policy and a peaceful solution to the problem.

If this step leads to a constructive shift in Iranian policy on the issue, the world community should provide Iran with conditions for maximum efficient cooperation in developing its economy and meeting its lawful political requirements and security needs.

The alternatives are few: an armed conflict with hard-to-predict consequences or a nuclear-armed Iran and the quite predictable collapse of the non-proliferation regime and a regional nuclear war.

Six. To put an end to North Korea's endless maneuvering at the six-party talks, Russia, the U.S., China, Japan and South Korea should take a common stand and bring strong pressure to bear on Pyongyang so as to make it scrap its nuclear and missile development programs. This tough stand should be supported by economic, political and humanitarian incentives to North Korea, including the promotion of peaceful nuclear energy projects.

The passive wait for the collapse of the totalitarian regime in that country could last fairly long, while the situation in north-eastern Asia keeps escalating. Therefore, the Six should act quite energetically.

Seven. As usual, the May Review Conference will have a wide and rather standard range of issues on the agenda, including nuclear disarmament, negative security guarantees to non-nuclear NPT member countries, stronger IAEA safeguards, formalization of the rules governing the possible withdrawal from the Treaty, internationalization of the nuclear fuel cycle, tougher export controls, non-nuclear zones, etc.

At the same time I feel it is necessary to draw the attention of the Conference organizers and participants to precisely those problems that I have mentioned. So, we have come together for the next meeting of the Working Group of the International Luxembourg Forum at an extremely important, interesting and crucial moment.

Our experience tells us that the Forum's statements and proposals attract the attention of the world leaders whom we address. For example, I cannot help mentioning the reaction of NATO's Secretary General to the Supervisory Council's statement last December, reflected in his well-known statement urging NATO to pursue a more vigorous policy on nuclear disarmament and to contribute to this process.

In view of the unique nature of the present moment I hope very much that this meeting of the Luxembourg Forum will produce concrete and constructive initiatives aimed at making the policies of the key powers and international organizations toward strengthening international security and preventing the nuclear threat more effective.



Tariq RAUF, Ph.D.

Head, Verification and Security Policy Coordination,
Office of External Relations and Policy Coordination
of the IAEA

Peaceful Uses of Nuclear Energy and the Role of the International Atomic Energy Agency

I am pleased to speak at this Workshop of the Luxembourg Forum on Preventing Nuclear Catastrophe.

The NPT is widely regarded as the multilateral nuclear arms control and disarmament agreement with the highest level of adherence in the world; it has the largest number of States Parties except the UN Charter. This year marks the 40th anniversary of the Treaty's entry into force and the Treaty's many important successes are well recognized – though some challenges remain.

The NPT consists of three equally important pillars – nuclear non-proliferation; peaceful nuclear cooperation; and nuclear disarmament – and the premise that progress in any one pillar strengthens the integrity of the whole.

The activities of the IAEA are also based on three pillars. Through its work on nuclear verification, nuclear safety and security, and nuclear technology, the IAEA continues to play a key role as a catalyst for sustainable development and as a cornerstone for nuclear safety and security and verification of compliance with the NPT's nuclear non-proliferation commitments.

There is an expectation in the international community that States Parties to the NPT will come together with a renewed unity of purpose to ensure a successful outcome to the 2010 Review Conference in May in New York.

Energy is central to sustainable development and poverty reduction efforts, and the Agency is working on facilitating the peaceful uses of nuclear energy with the highest levels of safety, security and non-proliferation.

The IAEA's technical cooperation program helps Member States to develop the skills and understanding needed to assess national energy requirements and compare electricity generation options.

The IAEA remains strongly committed to doing its best to facilitate the peaceful uses of nuclear energy for human development in many areas – including human health (cancer therapy), agriculture and water supply programs. Such Agency activities contribute to the success of the NPT and thus to global peace and security.

The Agency plays a vital role in ensuring that nuclear energy is used in a safeguarded, safe, secure and exclusively peaceful manner.

All States Parties to the NPT are expected to fully implement their safeguards agreements, as well as other relevant nuclear non-proliferation obligations.

The number of NPT States that have signed additional protocols with the IAEA now stands at 127, while 96 countries have APs in force. We hope to see that number exceed 100 before long. Nearly three quarters of States with comprehensive safeguards agreements (CSAs) have signed additional protocols and more than half of States with CSAs now have APs in force. Moreover, nearly three quarters of the countries with nuclear material under safeguards have additional protocols in force.

As required under Article III of the NPT, the IAEA is successfully applying safeguards in the overwhelming majority of NNWS Parties to the NPT in order to verify that nuclear energy is not being diverted from peaceful uses to nuclear weapons or other nuclear explosive devices.

States that have not yet done so should conclude and bring into force additional protocols without further delay. The remaining 21 NPT States that have yet to bring into force their required safeguards agreements should do so as soon as possible.

The 1995 and 2000 NPT Review Conferences both called for practical steps to establish a verifiable Middle East zone free of nuclear and other weapons of mass destruction. This and other regional issues will need to be

considered at the May Review Conference. It would be in the interest of all concerned States to address these issues with flexibility and compromise with a view to achieving progress.

A successful outcome to the 2010 NPT Review Conference should be the goal of all NPT States Parties and all concerned should do their utmost to contribute to the work of the Conference President and the Chairs of the Main Committees in achieving this important objective.



SESSION 1



Chairman –
Vladimir DVORKIN,
Professor

**Chairman of the Organizing
Committee of the International
Luxembourg Forum (Russia)**

The 2010 NPT Review Conference

William POTTER, Ph.D.

**Director of the James Martin Center for Non-Proliferation Studies,
Monterey Institute of International Studies (United States)**

Introduction

It is my honor and great pleasure to speak at this important workshop in Vienna in the lead-up to the 2010 NPT Review Conference (Rev Con). I also am grateful to the Luxembourg Forum and its founder, Mr. Kantor, for the opportunity to return to one of my favorite cities.

I have been assigned the challenging task of assessing the prospects for the forthcoming Review Conference. I would like to think that I have been given this task due to my experience as a delegate to the last three Review Conferences and all of the intervening Preparatory Committee meetings, although I suspect my reputation as a candid and at times undiplomatic commentator on NPT issues may also have played a role. In any case, I will try to be sufficiently provocative as to capture your attention while also providing you with a preview of what we may expect to encounter in the last seven weeks before the start of the Review Conference, as well as possible developments at the Rev Con itself.

Background Observations

My first observation is that we have an unusual opportunity at the forthcoming Review Conference to repair much of the damage that was done at the last Rev Con and its associated review process cycle, including disavowal of inconvenient, prior NPT Rev Con commitments – and I am not only speaking of the United States in this regard. This revival or restoration, however, will not happen automatically simply because there is a new administration in Washington that takes the NPT and multilateral diplomacy more seriously than did its predecessor. Indeed, unless many of those NNWS, who in the past have prided themselves as champions of disarmament and a balanced approach to the three pillars of the NPT, shift from the very passive mode a number of them were in at the 2009 Prep Com to energetic and active proponents of practical steps forward across the disarmament-non-proliferation-peaceful use spectrum, it will almost certainly prove impossible to find consensus on substantive matters.

My second observation is that one should not assume that the ability to forge consensus around a document consistent with P-5 objectives at the UN Security Council or the likely success in gaining support for a consensus document at next week's Nuclear Security Summit will translate into anything similar at the Review Conference, if for no other reason than the participants will constitute a very different group of states. Indeed, I would strongly caution that any attempt to link initiatives related to countering nuclear terrorism, promoting the Additional Protocol as the verification standard, multinational fuel arrangements, or encouraging modifications in the NPT withdrawal process by linking these sound initiatives to UN Security Council Resolution 1887 or the Nuclear Security Summit Communique and Work Plan will be a recipe for disaster. Too many P-5 diplomats and their Western Group allies simply do not appreciate the degree of opposition within the Non-Aligned Movement (NAM) to the exclusive nature of these fora and the vehemence with which they will attack any effort to introduce a linkage between 1887 and the Nuclear Security Summit results into the Main Committees of the Review Conference. This is not to argue against promoting much of the substance or content of these documents, but to recognize the politically charged nature of the issue and the ability

countries such as Iran and Cuba will have in exploiting resentment among states who did not participate in the UNSC and Nuclear Security Summit decision-making process.

My third observation is that there is a growing mismatch between the enthusiasm for a nuclear renaissance on the part of the would-be nuclear suppliers and recipients, the nuclear production targets being set, and infrastructure developments that will afford adequate nuclear safety and security oversight – even for some of those countries with experience in the nuclear power sector. This mismatch is in addition to the disconnect between the likely commercial availability of proliferation-resistant technology – in particular so-called fourth generation reactors – and the demand for new nuclear plants. How, I would ask, can we temper the natural enthusiasm for peaceful nuclear use with a recognition of the difficulty of ensuring that we will have well-developed, adequately-funded and independent nuclear regulatory bodies in place prior to the operation of nuclear power facilities – especially at a time in which we continue to navigate in very precarious global economic waters? Before his departure last year, IAEA Director General ElBaradei began to ask similar questions, but I don't sense that they have resonated much among those states most anxious to export nuclear technology.

My fourth and final observation, before turning to the most likely bottlenecks we will encounter at the Review Conference, concerns the lingering negative impact of the U.S.-India nuclear deal and the exemption granted to India by the NSG. Although one may disagree about the economic and strategic dividends likely to be reaped by different countries related to this deal, there is no doubt that the initiative has been very damaging from a non-proliferation standpoint, has devalued the benefits of non-nuclear weapons status in the NPT, is directly contrary to the commitments that all states undertook at the 1995 NPT Review Conference as part of the package of decisions and resolution that led to the indefinite extension of the NPT, and is at odds with two nuclear-weapon-free zone provisions. Although the NWS in particular would like to wish away these unpleasant realities, they will be in great evidence at the 2010 NPT Review Conference and are likely to be raised repeatedly in all of the Main Committees and Subsidiary

Body 2 if, in fact, an agreement is finally reached to have subsidiary bodies. The issue will be raised most forcefully by states from the Middle East who belatedly recognize how the exemption for India has undermined their efforts to isolate Israel for criticism. However, the criticism will also resonate among many NNWS from other regions who believe they were subjected to strong-arm tactics by the P-3 and Russia on this issue at the NSG two years ago.

The Most Likely Bottlenecks

Let me now turn to a number of likely bottlenecks we will encounter in the remaining weeks before the Rev Con and during the Rev Con itself.

Remaining Procedural Issues: Many observers assumed that with the adoption of the Rev Con agenda at the 2009 Prep Com that there would be smooth sailing at the Review Conference, at least with respect to procedural issues. However, this has not proved to be the case. This misconception became obvious last month when Iran, with the support of several other more extreme members of NAM, sought to block the proposal to have three Subsidiary Bodies (SBs) associated with the three Main Committees. In particular, Iran objected to the proposal to have SB 3 address the issue of Article X on Withdrawal. (The other two SBs were to be SB 1 on Disarmament and SB 2 on the Middle East/Regional Issues – SBs that traditionally have been supported mainly by NAM.) The position of the P-5, as best I can discern, has been to insist on either having all 3 SBs or none. This effort to introduce a stumbling block on procedure has had the unintended effect of leading to a major fight within NAM, since Egypt, as chair of NAM, regards SB 2 on the Middle East as the most important forum within the Rev Con and is adamantly opposed to losing this body. To the best of my knowledge, this issue has yet to be resolved, and if it is not settled before May 3, it could lead to a major procedural dispute at the Rev Con that stalls the start of the work of the MCs.

Bridging the Divide: One of the main factors contributing to the relative success of the 2000 NPT Review Conference was the ability of the New Agenda Coalition to serve as a bridge between the NWS and the NNWS.

Another major contributor to the successful negotiation in 2000 was the flexibility displayed by both key NWS and some leading members of NAM. Today, in contrast, the positions of a number of key states have hardened; NAC is in decline and is unlikely to have very much new to say because of internal disagreements about priorities; the Norwegian-led Seven Country Initiative is wary of saying anything in an NPT forum – assuming that it could agree internally, and there are no obvious new political groupings to bridge the enormous gulf that separates many NWS and NNWS (and especially NAM) on the most important issues related to nuclear disarmament, non-proliferation, peaceful use, and combating nuclear terrorism. As such, one of the highest priorities as we approach the 2010 NPT is to find common ground among the NWS and the NNWS.

Ironically, unlike the past, Main Committee 1 disarmament issues actually may prove to be the least controversial and contentious, especially since the United States and Russia succeeded in concluding a START follow-on treaty in advance of the start of the Rev Con. The likelihood of a convergence of views in MC 1 also would be enhanced if the U.S. Nuclear Posture Review indicates some narrowing of the role of nuclear weapons in U.S. national security policy. Far more problems are apt to arise in Main Committees 2 and 3 where one will have to tackle difficult regional issues, as well as those related to peaceful use. In this regard, although the September 24th Security Council Resolution produced a unanimous vote on such issues as the Additional Protocol and multinational fuel arrangements and strengthened provisions for withdrawing from the NPT, it is almost beyond the realm of possibility to believe these initiatives will have similar success in the larger NPT Review Conference forum in which a few NAM states not on the Security Council can block consensus.

The Door is Open; Who is Prepared to Walk Through?

One of the lessons that I derive from the 2009 NPT Prep Com is that the old designations of disarmament and non-proliferation leaders are misplaced. Indeed, as some of you have heard me say before, I would assert that if a visitor from outer space were to have observed the last Prep Com but didn't

know who was saying what, he almost certainly would have confused the United States as the leader of the New Agenda Coalition, while assuming that a number of the traditional white knights of disarmament were missing in action. This phenomenon can be understood both in terms of the forward-looking position on a number of disarmament measures put forward by the United States, but also in terms of the passive positions adopted by many NNWS, who in the past led the charge on disarmament issues. As a consequence, if we are to avoid a stalemate at the Rev Con, a number of things will have to change. In my view, it will first be necessary for a number of NWS to adopt a more accommodating stance on disarmament issues. In the recent past they were able to hide behind the "nay-saying" of the Bush administration but now seem unprepared for the about-face by the new leadership in Washington. Based on its obstructionist stance at the 2009 NPT Prep Com and its role in diluting disarmament language related to UNSCR 1887, I would identify France as the P-5 member most likely to find itself in an awkward position at the Rev Con, but China and Russia also may find some disarmament initiatives very much to their disliking. (For China the issue will probably relate to transparency, while for Russia the most objectionable disarmament measure will most likely pertain to a renewed focus on non-strategic nuclear weapons reductions.) Moreover, I would argue that there is a need for more NNWS to challenge those in their midst who are stuck in tired rhetoric and unprepared to seize the opportunity created by the major shift in U.S. orientation. Unless they adjust their ultra-cautious behavior to new circumstances and show more flexibility, they will bear much of the blame for failing to dash through the door, which has suddenly cracked open but may slam shut again at any moment.

Begin to Implement the ME Resolution

A fourth major bottleneck for the Rev Con, the most difficult issue to grapple with, and the one most likely to affect the outcome of the Rev Con, will be progress (or lack thereof) on the Middle East — the touchstone for a consensus document as far as Egypt and many other Arab states are concerned. In this respect, it is important to note that

Egypt is chair of both NAM and NAC this year. In fact, probably relatively little is required to demonstrate some headway in implementing the 1995 Middle East Resolution — and the Russian proposal made at the 2009 Prep Com is a good starting point, as is the idea of a regional conference convened under the auspices of the UN Secretary General — but the less than stellar manner in which this issue was dealt with by the Security Council in September is not encouraging. As of several weeks ago, my impression was that neither the United States (and the other P-3) nor Egypt (and its Arab partners) was very satisfied with how the other party was addressing the issue. The United States was holding its cards very close to its chest, and although it is unclear who is calling the shots on this issue within the U.S. Government, it does not look like considerations about the NPT are a major factor driving U.S. policy in the region.

Finally, with respect to the Middle East, I would note that a great deal will depend on what does or does not happen regarding Iran. In this regard, it is worthwhile to note that efforts at the UNSC to sanction Iran — if undertaken prior to the conclusion of the Rev Con — almost certainly will reduce whatever limited incentive Iran has to be cooperative at the Conference. More specifically, should the SC sanction Iran during May you can bet all of your money that Iran will block any consensus-based document at the Review Conference.

Consensus "Light"

I believe it is fair to say that in recent years members of the international community have set the bar so low for success in the NPT review process that we now run the risk of making the so-called "strengthened review process" irrelevant to the real challenges we face with respect to nuclear proliferation, disarmament and peaceful use. In particular, I worry that the mistaken tendency to equate achievement of a consensus final document with a successful review outcome means shunting aside the most serious proliferation challenges, including but not limited to DPRK and Iranian nuclear brinkmanship, the Indian and Pakistani nuclear arms race, the threat

of non-state actors and nuclear terrorism, and the continuing emphasis given to nuclear weapons in the security postures of the NWS. Although it is difficult to devise a practical way around the perceived tradition of consensus, one should not confuse precedent with prescription, or preference may well become paralysis. To be more blunt, there is no procedural mandate for the Rev Con to reach decisions on either procedural or substantive issues by consensus, although there is a strong political incentive to do so. In fact, in 1985 the final document successfully engineered by Conference President Mohamed Shaker resorted to a "he said, she said" formula on one particularly contentious issue dealing with the Middle East. It also is the case that NAM utilizes a decision-making process by which documents may be adopted in which strict consensus is not required. Finally, it is worth noting that the historic decision to extend the NPT indefinitely was only possible because it was clear that the President was prepared to undertake a vote if necessary and had the votes in his pocket. I dwell on this point, because it is not well understood by most outside observers or even some of the NPT practitioners.

I would suggest that one possible way around the dilemma of a stalemated conference is to distinguish between the Review Conference's retrospective review of the treaty and its look to the future. Although there may be very good political reasons for retaining a consensus-based approach in negotiating possibly new non-proliferation and disarmament objectives, I would argue that the review process would be well served by a less rigid approach for assessing past behavior, and it is the review portion of the Conference where Iran is apt to be most intransigent if the document criticizes its noncompliance behavior by name.

Conclusion

I have had the opportunity to observe a number of memorable NPT review process moments since 1995, including President Dhanapala's quick gavel in May 1995, the final adoption of the 2000 Final Document, and Henrik Salander's musical rendition of the Chair's Factual Summary in 2002 (I am not making this up — he really did sing the Chair's factual summary to the

Beatles' tune "Yesterday".) Perhaps the most eloquent statement I heard, however, was made by Secretary General Kofi Annan at the start of the 2005 Review Conference. In an effort to jolt delegates to action for the purpose of avoiding the ultimate, potential negative consequences of a failed conference — the greater likelihood that a catastrophe will occur, be it by accident, terrorist design, or state aggression — he asked: "How did it come to this? Is my conscience clear? Could I have done more to reduce the risk by strengthening the regime designed to do so?" As we know, his appeal fell on deaf ears. It remains to be seen if delegates to the 2010 Review Conference will be more attentive to these probing questions than their predecessors. If they are not, it is hard to imagine a truly successful Rev Con.

As my remarks this morning should have indicated, I am one of those in the camp of "don't equate a successful NPT Rev Con outcome with a consensus document." I very much hope that we will set the bar of success high enough so that outside observers who read the one paragraph story on page 7 of the *New York Times* on May 29th about President Cabactulan's success in forging a final Rev Con document are able to reconcile this achievement with other possible front page headlines on the same date about "Daring Terrorists Attack Pakistani Nuclear Storage Site," "Pretoria Announces New Nuclear Trade Agreements with India," "CTBTO Discerns Suspicious Seismic Event on the Korean Peninsula," "Iran Announces Plans for a Peaceful Nuclear Explosion as Permitted Under Article V of the NPT," and "Russian Duma and U.S. Senate Reject START Follow-on Treaty in Coordinated Action." Hopefully, all of these front page stories will remain apocryphal. It is nevertheless crucial that the debates in New York acquire a less surreal quality and the so-called "strengthened NPT review process" more closely addresses the real nuclear challenges we confront today.

The Prospects for the Comprehensive Nuclear-Test-Ban Treaty Entering into Force

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To begin with, I would like to introduce myself. I am not only an employee of a Russian Federal nuclear center, which is one of the two nuclear weapons design centers, but I also perform certain duties at the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO). Specifically, I lead the work of national delegations in this organization on issues related to on-site inspections. As a technical expert, I may allow myself a bit of an imbalance by paying more attention to a sphere I am more familiar with than the sphere of traditional diplomacy. Nevertheless, I will try to cover all aspects of the problem in my presentation.

Viatcheslav Vladimirovich Kantor has already identified the role of the Comprehensive Nuclear-Test-Ban Treaty (CTBT) in the system of measures to prevent a nuclear catastrophe. However, William Potter has hardly mentioned the role of this Treaty in terms of prospects for the 2010 NPT Review Conference. This is quite reasonable if we compare it to such current events as the signing of the new START Treaty or the rapidly growing threat of Iran creating nuclear weapons. However, although this question is not central to the work of the Conference under discussion, in the long run

one of the major challenges to the NPT's sustainability would be the entry into force and implementation of the CTBT.

Before addressing the prospects I would like to look back and take stock of what has been done, i.e., how we have started to create the necessary conditions for the CTBT's entry into force and where we are now. Only then could we talk about the prospects and level of expectations, as well as about what could and should be accomplished first of all. I remember the initial period after the draft Treaty was completed. It was a time of great optimism. Indeed, there were grounds for optimism; the period was marked by many significant achievements in nuclear non-proliferation and disarmament in general. Specifically, the Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction was successfully completed, the Republic of South Africa voluntarily renounced its nuclear weapons, and the international community took decisive measures to terminate and dismantle the Iraqi nuclear weapons program, whereby special inspections played an instrumental role. Everybody expected that political conditions for the CTBT's entry into force, specifically for its signing and ratification, would be met very quickly, maybe even too quickly for the verification regime of the Treaty to be built. This is why in addition to the requirement of ratification by all 44 listed States, Article XIV of Treaty stipulates that the Treaty shall not enter into force earlier than two years after its opening for signing. At the time everybody expected that all the 44 States referred to in the Article would sign and ratify the CTBT fairly quickly, but these expectations didn't pan out.

Soon it became clear that the task of building the Treaty's verification regime was even more difficult than had been initially assumed. This system is unique in terms of its technical sophistication and the scope of work required. In retrospect, it is obvious that it was impossible to build such a system in two years. Consequently, looking ahead one could say that a certain benefit came out of the delayed implementation of the Article XIV requirements for the Treaty's entry into force. However, this benefit could in no way compensate for the adverse effects of the CTBT's delayed entry into force.

So what happened afterwards? In spite of the fact that at the very end of the negotiating process India refused to sign the CTBT and Pakistan made a similar statement using the position taken by Delhi to justify this move, the Treaty was approved and opened for signing. Moreover, it was signed fairly quickly by an overwhelming majority of the States and its ratification process commenced. The ratification process reached its peak in the third year after the Treaty had been opened for signing. Even the nuclear tests conducted simultaneously by India and Pakistan could not destroy the hopes at that time that the Treaty would be able to enter into force two years after it was opened for signing. After all, they had been conducted before the deadline ran out, which gave India and Pakistan the option of acceding to the Treaty shortly afterwards without endangering the process of the CTBT's entry into force.

Today, after more than a decade-long delay in the Treaty's entry into force, the situation looks completely different. One of the reasons for the delay lies in the fact that the former Bush Administration not only seriously put the brakes on the Treaty ratification process but also created an environment where the opportunity for the CTBT's entry into force was lost for a long time. Now there is a new administration in the U.S. and there are new hopes, as can be seen in the work of the CTBTO Preparatory Commission. For instance, for the first time last month more than a hundred States participated in a regular session of its Working Group B (on verification issues). After a break of many years Pakistan once again took part in its work as an observer. These positive elements generate hope.

At the same time, one cannot underestimate the remaining problems. Many believe that these would be resolved once the United States successfully ratified the Treaty, which optimists expect in the near future. In my opinion, however, there is no guarantee of a successful CTBT ratification in Washington. The results of discussions and recommendations regarding the CTBT by the U.S. Congressional Commission under the chairmanship of William Perry are well known; they were made public about a year ago. Its members failed to reach consensus on whether the U.S. should ratify the Treaty. On the other hand, the Commission made a number of conditional recommendations that deserve attention, not only in terms of how the rati-

fication should proceed in the United States, but also in terms of reviewing what the international community could do to assist the process. Specifically, the Commission's first recommendation reflected the need for extensive debates on a wide range of issues associated with the CTBT, including benefits and risks both domestic and international. While the domestic debates deal primarily with the issue of effective verification, as well as the extent of potential impacts of the accession to the Treaty on the ability of the U.S. to maintain the safety of its nuclear arsenal, the international debates could focus on other issues. For instance, the question has been raised once again as to the extent to which compliance with the CTBT would hinder the development and improvement of nuclear weapons. This question is to be expected from those States that have not acceded to the CTBT, and it should be properly addressed.

Yet there are other issues requiring joint efforts, and not just within the U.S. One of them has to do with the agreed understanding of prohibited activities under the CTBT. At the time of its signing the following wording was fixed: the Treaty prohibits all nuclear weapon test explosions and all other nuclear explosions. However, these terms were given no definition. Now the question is raised whether the activities conducted at nuclear test sites conform to the common understanding of the nuclear powers. Another issue is reflected in the second recommendation adopted by the Perry Commission. It is the option of the five official nuclear powers (in the sense of the NPT) entering into a separate agreement among themselves to conduct on-site inspections until the Treaty enters into force. I might recall that according to the CTBT no verification measures may apply until after the Treaty enters into force. In this case, there is no straight and simple solution either. Apparently, both the official Five and the whole international community, including our Forum, will need to exert efforts to produce a long-term strategy as to how to move toward the Treaty's entry into force. This not only concerns securing CTBT ratification by the United States. Before the Treaty could enter into force, another eight nations besides the U.S. will need to ratify it, three of which never even signed the Treaty: India, Pakistan and North Korea. Engaging these three States with the CTBT is not a simple task at all.

Finally, a few words about technical issues concerning the Treaty's entry into force. In addition to political requirements, the Treaty stipulates that at its entry into force an effective verification regime shall be established and that it shall be capable of meeting the verification requirements of the Treaty. In the case of the International Monitoring System, as of now it is already close to meeting these requirements. As for the level of the on-site inspections (OSI) regime, things are considerably more difficult. This task is much more challenging for a number of reasons. First of all, the OSI regime, being unique in its scientific and technological depth and sophistication (over a dozen different technologies for targeted search, localization of suspicious events with the highest precision and identification of their true nature), is completely different from verification regimes under other treaties and does not have the experience of practical application for the detection of nuclear explosions that has been acquired over many years through IMS technologies, in particular, seismic monitoring. Therefore, OSI has lagged behind the IMS from the very beginning when the CTBTO Preparatory Commission first started its work.

There is yet another even more fundamental difference between OSI and the IMS that makes the OSI's task significantly more challenging. The IMS benefits from major similarities among recorded signals from various nuclear explosions. For example, seismic signals from underground nuclear explosions recorded at seismic stations have a number of typical features that are practically independent from location and other explosion parameters. This considerably simplifies the task of differentiating them from sources of a non-explosive nature. As for the OSI system, it has to deal with an infinite variety of potential scenarios driven by topographical, climatic, geological and other features of specific inspection areas, and the environment and characteristics of a suspicious event whose nature has to be identified, as well as interactions with the inspected State, which gives OSI a game-like quality. Therefore, "readiness" criteria for OSI haven't been established yet, as they can't be similar to the IMS. In this area one will probably have to make do with only operational readiness in the sense of the capacity to conduct all operations starting from the arrival of the inspection team and its equipment at the point of entry in the inspected State through

the completion of post-inspection activities in strict compliance with their timeline requirements provided for in the Treaty.

Nevertheless, significant progress has also been made in the development of the inspection component. In particular, this was demonstrated by the first large-scale Integrated OSI Exercise in September 2008. On the basis of the experience of this exercise, the so-called Action Plan was developed and approved by the CTBTO Preparatory Commission in November 2009. The Plan covers further development of inspection technologies with a focus on those that lack substantial experience in their application for OSI purposes, procurement and testing of equipment that is not yet available, improvement of infrastructure, progress in the development of the OSI Operational Manual and other documents, and a new training cycle for potential inspectors. The progress achieved in the establishment of the OSI regime will be demonstrated at the next large-scale integrated exercise, tentatively scheduled for 2013. The expectation is that the implementation of the Plan will deliver the "minimum" operational capability required to conduct OSIs.

Consequently, there are reasons to believe that the technical challenges associated with the verification of CTBT compliance will be resolved within a reasonable timeframe and will not slow down the Treaty's entry into force.



SESSION 2

*УТВЕРЖДАЮ В ПЕЧАТЬ
Евсеев Владимир*



Chairman –
Alexei ARBATOV,
Corresponding member (RAS)

Head of the Center
for International Security
of the IMEMO (RAS),
Scholar-in-Residence
of the Carnegie Moscow
Center (Russia)

Nuclear Disarmament

Vladimir DVORKIN, Professor
Chairman of the Organizing Committee of the International
Luxembourg Forum (Russia)

Further steps to reduce nuclear weapons following the signing of the Prague Strategic Arms Reduction Treaty (START) would appear to be fairly difficult, and there is little likelihood that they will be taken quickly. Of course, there have been significant changes in the nuclear weapons policy of the new United States administration compared to that of the previous administration. At the same time, President Obama's team is maintaining considerable continuity with the Bush administration as regards these problems, despite a number of declarative differences. This is possibly connected with the fact that, as seen by the U.S. leadership and to some extent, perhaps, by Russia, a further reduction in strategic arms in comparison with the 2002 Moscow Treaty, in which the upper ceiling was set at 2,200 warheads, does not seem entirely justified, insofar as lower ceilings would make it necessary to formulate a new nuclear policy with respect to China and, possibly, with respect to the group of three de facto nuclear States – India, Pakistan and Israel. For the time being, however, the new U.S. nuclear doctrine speaks only of the need to continue this kind of dialog with Russia at a bilateral level. This policy addresses relations with Beijing in somewhat more reserved terms, calling for greater transparency in China's nuclear policy.

In the past, high ranking U.S. military officials consistently held the position that it would be dangerous if China were to approach a level of nuclear warheads comparable to the level at the disposal of the U.S. In October 2008, not long before leaving office, the U.S. Republican administration presented Russia with its new draft START treaty, and that draft said nothing about further reductions. What was essentially involved was the level set out in the Moscow Strategic Offensive Reductions Treaty (SORT) of 2002, in other words, an upper ceiling of 2,200 nuclear warheads. At the same time, a significant part of that draft dealt with the development of a system of inspections and notifications and with the rights of the regulatory bodies.

What has happened now? First and foremost, the START Treaty signed in Prague revealed an extremely important feature and an element of agreement in the nuclear policy pursued by Moscow and Washington, namely, the absence of any intention in the foreseeable future to undertake deep cuts in their strategic weapons below the level set in 2002 in the Moscow SORT Treaty. In point of fact, under the new Treaty a lower level of warheads can be seen only in the change in the rules for counting warheads on bomber aircraft. If we assume that the 56 deployed American B-52 heavy bombers can realistically carry 1,120 air launched cruise missiles (warheads), which under the conventional counting rules set out in the START-1 Treaty was 672 warheads, we are now left with 56. In the same way, the real number of warheads (more than 850) on the 77 deployed Russian Tu-160 and Tu-95mc heavy bombers now becomes 77 warheads.

Apart from the political relations between the parties, the question of further reductions in strategic offensive arms is connected not only with the dynamics in the balance of strategic offensive weapons but also, to an even greater extent, with progress in tackling the most important related problems. In particular, a solution must be found to the problem of pooling efforts in the area of missile defense in the U.S.-Russia-NATO format. It will also be necessary in parallel to conduct consultations on tactical nuclear weapons and conventional weapons in Europe. Cooperation among the major powers in response to the problems posed by Iran and North Korea and in the strengthening of the non-proliferation regime in general will have a significant role to play. There will be a need for certain limita-

tions and confidence building measures with respect to the weapons of third nuclear powers.

Cooperation as regards the missile defense system planned for deployment in Europe is taking on particular importance. The crisis connected with the plans to deploy strategic missile defense facilities in Poland and the Czech Republic has been put off until such a time as the American missile defense system, which is based on naval units and SM-3 interceptor missiles and which is constantly being updated, begins to acquire strategic potential. Unless the question of cooperation in the development of a joint U.S.-Russia-NATO missile defense system is resolved by that time, we will be faced with a new and considerably more acute crisis that will stall the process of reaching any agreements on further nuclear arms reductions for a long time.

For the time being, what we have is no more than a joint assessment of likely missile threats, something that can go on indefinitely. At the same time, likely missile threats from "third" countries were assessed in virtually exhaustive detail last year by Russo American specialists as part of research conducted by the EastWest Institute. This work was continued and completed at a highly professional level under the auspices of the International Institute for Strategic Studies (London). However, at the state level routine work is continuing on this problem without any hope of a successful conclusion. This is why the Luxembourg Forum must help to step up efforts for the joint development of missile defense.

Of course, we also need to begin consultations on non strategic nuclear weapons. It is virtually impossible, when dealing with this question, to make use of the experience gained in strategic arms reductions, given the particular features of tactical nuclear weapons. A beginning here needs to be made with the formulation of transparency measures on a bilateral basis.

As we can see, therefore, there is a whole range of problems that, if not solved, will make progress in further nuclear arms reductions extremely difficult. These problems include the overwhelming superiority of the U.S. in conventional weapons, steps towards the unilateral or multilateral deployment of missile defense systems, and complexities in controlling non strategic nuclear weapons. Only by overcoming these obstacles will it be possible to speak of further reductions in strategic weapons.



SESSION 3



Chairman –
Sergey OZNOBISHCHEV,
Ph.D.

**Director of the Institute for Strategic
Assessments (Russia)**

The State and the Prospects of the Iranian Nuclear Program

Anton KHLOPKOV

Director of the Center for Energy and Security Studies (Russia)

One can talk at great length about both the Iranian and the North Korean problems, considering both the historical facts and the prospects for the future, but the diagnosis has already been made with absolute certainty. The situation, to our great regret, is truly deadlocked. Working from this premise, I shall endeavor to briefly highlight the changes that have occurred in recent months as regards the topic under discussion and that will undoubtedly have an impact on the Review Conference of the Parties to the Treaty on the Non Proliferation of Nuclear Weapons (NPT).

First, the Iranian problem needs to be considered comprehensively. Here it is necessary to take into account four basic dimensions of that problem: the political, the technical, the legal and also the security dimension. From an engineering point of view, Iran has recently accomplished the nuclear technology objectives that were earlier set by Shah Pahlavi. As I see it, Iran has moved beyond the so called "point of no return", when, regardless of the introduction of new sanctions or even the conduct of a limited military operation, it is technologically speaking at a level where it will be able to produce highly enriched uranium. At this point, it is a question of time. It is likely that this process can be slowed down, but Iran will

nevertheless achieve the necessary technological capacity within the next decade.

The main question is how to bring about the kind of conditions to ensure that these technologies and the equipment that Iran already has or will obtain at some point in the future cannot be diverted toward military uses; how to make certain that the Iranian nuclear program becomes sufficiently transparent and that we can be at least relatively certain that Tehran will not be able to start producing weapons grade nuclear material any time soon. And here, I would like to return to a point raised in the discussions at the start of our meeting, namely, that sanctions are clearly not working. What is more, the effectiveness of these sanctions was even less than non-existent, since they have proven to be counterproductive in nature. To be sure, the sanctions demonstrated a unified approach to this problem on the part of the permanent members of the United Nations Security Council, but they have not led to any greater transparency in the Iranian nuclear program and have resulted in a systematic reduction in Iran's cooperation with the International Atomic Energy Agency (IAEA). To begin with, Tehran refused to apply the Additional Protocol (1997) to the Agreement with the IAEA for the Application of Safeguards, and later the so called Code 3.1. A reaction of this kind by the Iranian side was entirely to be expected.

Undoubtedly, the problem of trust is one of the key factors in the escalation of the Iranian nuclear crisis. Here, I would like to draw particular attention to the proposal made to Tehran earlier regarding the exchange of low enriched uranium in return for nuclear fuel for the Tehran Research Reactor. In my view, this proposal created a unique situation as regards the Iranian crisis and made it possible to achieve progress with respect to trust, even if it did not solve the entire problem. This gave hope for a greater level of trust than had previously existed. I am not inclined to blame Iran alone for the fact that this proposal has failed to work so far. I believe that the basic problem lies first of all in the fact that, to use mathematical language, as of today the set, consisting of the western countries among the six international mediators, the set consisting of the approaches to the problem, and the set represented by Iran do not even intersect. Meanwhile, the main task within the framework of this proposal for the six mediator countries

was to reduce the quantity of enriched uranium located on Iranian territory in the form of hexafluoride. Tehran, however, was attempting to obtain nuclear fuel for the Tehran Research Reactor. In my opinion, neither party was interested in a compromise, although the conditions for one existed. For example, Iran proposed a simultaneous exchange, which would have been possible. Unfortunately, this did not happen.

I would like to draw attention to a very important fact, especially on the eve of the NPT Review Conference. Current United Nations Security Council resolutions in force with respect to Iran do not prohibit deliveries of nuclear fuel for use in the Tehran Research Reactor. Iran will no doubt actively exploit this fact, claiming that the current market mechanisms for nuclear fuel deliveries are not working. This being the case, Tehran is unable to obtain nuclear fuel for its research reactor, even though the enrichment level of this fuel amounts to up to 20% of uranium 235, and nuclear fuel of this sort does not fall under the international sanctions regime. This will undoubtedly be yet another blow to the so called international approaches to the nuclear fuel cycle issue, since the mechanisms that are being created or have even already been created are still failing to provide solutions to the relevant issues and problems.

We need to examine the question of the possibility of nuclear fuel deliveries for the Tehran Research Reactor from the nuclear fuel bank that is currently being set up in Russia. In connection with this, it would be desirable if there were some progress as regards nuclear fuel deliveries for the Tehran reactor. Otherwise, this will be yet another argument that Iran will actively exploit during and after the forthcoming conference to discredit, among other things, the international approaches to this problem.

I would like once again to stress that a resolution of the Iranian nuclear problem through a sanctions regime is not in sight, at least not in the foreseeable future. Tehran's response to this approach should not be forgotten either. In light of the recent report on Iran by the IAEA Director General, pressure within Iran as regards the nature and scale of its cooperation with the Agency is unquestionably building up to a considerable degree. Under these circumstances, it cannot, unfortunately, be ruled out that further United Nations Security Council resolutions will only reduce the transpar-

ency of the Iranian nuclear program. As a result, Iran may limit the access of IAEA inspectors to declared nuclear facilities.

As for the question of a military operation, which many parties have recently mentioned, I would like to make the following comments. An operation of this kind cannot help resolve the nuclear crisis, since in the middle of the first decade of the twenty first century the decision was made in Tehran to make duplicates of all strategic facilities and enterprises. This being the case, only limited damage could be inflicted on the Iranian nuclear infrastructure, especially considering that the back-up facilities are located under ground and are well protected. Consequently, a compromise needs to be found. In my view, a compromise of this kind might take the form of an initiative to begin some sort of practical cooperation with Iran, notably as regards the Tehran Research Reactor.

The second topic of interest to Iran is raising the safety level at this nuclear reactor, built in 1967. Tehran is evidently willing to consider the possibility of drafting a trilateral agreement with the U.S. and the IAEA so that the existing safety system at the reactor might be upgraded. To be sure, this would not eliminate all our concerns, including those of Russia, regarding Iran's nuclear activities and their transparency, but it would at least enable us to expand our cooperation with that country in nuclear matters. It could provide an additional instrument for collaboration. Of course, there is no guarantee that this approach will work, but this opportunity should at least be taken.

I believe that at some stage in the negotiations or consultations with Iran on nuclear fuel for the Tehran reactor the question of adapting the previous proposal must also be discussed. We also need to remember that the goal of independently producing enriched uranium was in fact set as long ago as under the Shah, when Iran was working with both uranium and plutonium. In other words, even back then there was the question of developing technologies that could, if needed, lead to the production of weapons grade nuclear materials. Bearing this in mind and looking at the Iranian question from a strategic angle, we need to resolve the safety issues, since if we compare the current situation with the situation in the 1970s, from a technological point of view the goals set are roughly the same. However,

Iran's perception of its security today and in the 1970s is fundamentally different, and the likelihood that the situation will develop into a military scenario is much greater today than it was in the 1970s.

It should be mentioned that the issue of resolving the Iranian nuclear problem is inextricably bound up with the process of continuing cooperation with Tehran as regards the peaceful use of atomic energy. To begin with, the construction of the Bushehr power reactor needs to be completed. This is the tool that we can still use in explaining to Iran that we have no problems as regards the country's development of atomic energy. Here I take the position that the actual start up of the Bushehr nuclear power plant could well occur in the summer of 2010. I do not think that anything out of the ordinary can happen here, given that the strategic decision by Russia on the start up of the Bushehr nuclear power plant was made in 2007, when the delivery of nuclear fuel for that site began. Some 80 tons of that fuel have been delivered. It is therefore fairly difficult to imagine a situation in which Russia would not complete the construction of the nuclear power plant, considering that such a quantity of our fuel is under IAEA safeguards there.

If we approach the current Iranian situation in the light of the upcoming NPT Review Conference, in my opinion it is important to avoid making Iran the central theme of that conference. That would be extremely counterproductive. Moreover, Iran is very sensitive to the mere mention of it as a country in violation of the nuclear non-proliferation regime. Accordingly, we need to find the kind of wording that, on one hand, would enable us to outline the range of problems that exist from the point of view of Tehran's implementation of its NPT commitments. On the other hand, we should not create additional destabilizing factors, if only in the interests of the success of the upcoming conference. Further, prior to convening the conference, it would be useful to breathe some fresh air into the discussions on the Tehran Research Reactor. Of course, in the weeks that remain until then it will be impossible to resolve the problem of nuclear fuel deliveries or even to conclude a provisional agreement. But what is necessary is some sort of a fresh step in that direction. Otherwise, we will find ourselves facing a situation where Iran has an additional argument in negotiations with other devel-

oping countries to the effect that the nuclear fuel market does not always work effectively, and that consequently national nuclear programs need to be developed, lest these countries find themselves in the same situation as Iran.

I would like to return to a question that has already been touched upon here today. I am referring to the possibility of introducing new sanctions against Iran prior to the start of the NPT Review Conference. In my view, this could be a destabilizing factor that would considerably alter the entire conference agenda. If that were the case, Iran would do everything possible to ensure that the conference ended after nothing more than a discussion of the agenda and of procedural issues.

In conclusion, I would like once again to stress that the situation with Iran is deadlocked, and what is important for us is that there should be no further developments in this crisis before the start of May of this year. The NPT Review Conference needs to be held and Iran should not be made the principal party in destabilizing it. After that, we can try systematically and consistently to resolve those issues that genuinely exist in connection with the Iranian nuclear program. There are enough of them. If the opposite happens, this will not solve the situation as regards Iran but will introduce additional destabilizing factors in the course of the forthcoming conference.

Approaches to the Korean Nuclear Crisis Management

George PERKOVICH, Ph.D.

Vice President for Studies and Director of the Non-Proliferation Program at the Carnegie Endowment for International Peace (United States)

I'll be brief. I want to comment on multiple issues that I think all come together: the U.S. nuclear posture review, the non-proliferation regime and North Korea, and U.S. strategic relations with China. I believe that the broad strategic relationship that the U.S. and China will create in the next years will profoundly affect the world's capacity to manage North Korea's nuclear provocations and to strengthen the non-proliferation regime. Beijing's and Washington's decisions on nuclear doctrine, nuclear force development and modernization, and missile defenses will depend on each other, and the results of these interactions will then affect their cooperation on non-proliferation.

Let me start with North Korea, though. I think it is becoming clear that North Korea is not thinking or acting as if its nuclear capability is a subject of negotiation or leverage that it is prepared to eliminate in some sort of trade for other benefits. Instead, Pyongyang seems to conclude that its nuclear weapons capability must be maintained indefinitely as a strategic deterrent. They see nuclear weapons as a guarantee of the regime's survival

and territorial integrity. Therefore the government is not prepared to bargain away this capability. Yes, the government wants a peace treaty with the U.S., and it wants economic assistance and security. But Pyongyang now seems to believe it can have both: keep its nuclear weapons and get what it wants from the U.S., China and South Korea.

I experienced this North Korean perspective a couple of years ago, and it's become more obvious in North Korean pronouncements since then, that is, the DPRK seems to use India as a model. The nuclear cooperation agreement that the U.S. and the NSG worked out for India is now a model North Korea wishes to copy. North Koreans say, basically, that "instead of all the incentives we would get from you in return for giving up our nuclear capability, we want to keep our nuclear capability and get all the incentives from you anyway." I know India is an example, because North Korean diplomats said it to me directly in 2008. You can argue correctly that North Korea is not India and that there are about 15 reasons that you can specify to demonstrate clearly how North Korea is not like India, including the fact that North Korea signed the NPT and violated it, while India did not, and that India does not proliferate nuclear weapon and missile capabilities to others, or brutalize its people, etc., but North Koreans will say, "no, no, you do not understand." And you say, "O.K., tell me what I don't understand." And the North Korean says, "this is not about us. It is not about North Korea or India. It is about you, the United States. The issue is that when you decide someone is your friend you can change the rules. You decided India was your friend, so you changed all the rules that had sanctioned them. If you want North Korea to be your friend, as you say, then you should change the rules." This leads to the demand that North Korea should be allowed to keep its nuclear weapon capabilities (as India has) AND still receive cooperation and other incentives (as India has).

In the past couple years North Korea has continued to vacillate between being aggressive and pressuring the U.S. and others and then backing off and becoming more reasonable and saying it will negotiate. In the meantime it is becoming clearer that what the DPRK really wants is to conclude a peace treaty with the U.S., normalize that relationship and have the U.S. recognize that the North Korean regime will continue and should be

treated by us as normal state and not threatened. It's not clear what North Korea would provide in response to that because again they're saying the nuclear capability is their deterrent forever. So, what we want them to give up is no longer on the table, and it's not clear what the trade-off would be. The U.S. and the Bush administration especially relied a lot on the Six Party talks because the administration would not negotiate with evil doers, and also President Bush didn't like rude people, so he would not sit directly with the North Koreans to negotiate deals. Having the Six Party talks was a good way to not actually have to sit directly with the North Koreans as your dinner partner, as it were. That dynamic has changed in a lot of ways and the U.S. administration is willing to engage directly even with states such as North Korea and Iran, whose actions at home and abroad violate many standards of decency and international rules. But, on the other hand, there is new desire to have the Six Party framework, in part because this framework could become the basis of a broader security architecture in northeast Asia. Northeast Asia doesn't have a security architecture, doesn't have NATO, doesn't have OSCE. It's relatively formless. Insofar as the Six Party framework is a good way to deal with security issues in northeast Asia, it makes sense to continue addressing the North Korean nuclear challenge among the Six Parties. But there is also a recognition that the North Koreans want to deal with the U.S. bilaterally and keep insisting on this, so the Obama administration is trying to deal on a bilateral track, but not at the same level as within the Six Party process.

The U.S. is key because the North Koreans want to deal with it directly and exclusively. But, again, there's been reluctance in the U.S. to put a lot of the leadership time into working on this problem for variety of reasons. The U.S. has not had a great experience since 1994 in "solving" the North Korean nuclear problem. Every time we think we have a deal, it collapses. So, who is the ambitious high-level official in the U.S. (or any other) government who would want to be stuck with leading negotiations with North Korea? It's not exactly a smart move if you want to advance your career or not be subject to brutal attacks by the other party in Congress and the media. It's easy to look like a fool when your job is dealing with North Korea. So high level officials don't generally volunteer. As it seems more clear

that the North Korean leadership is not going to actually get rid of all nuclear capability and follow its disarmament commitments fully, what is the big victory that you would gain if you did invest your time and energy in this challenge? At best you may come back from negotiations with a viable agreement that North Korea would stop making things worse. Maybe they would live up to agreements not to produce more plutonium, and maybe not to test long-range missiles. But it's hard to portray these as major victories, so it's hard to invest careers and political capital in pursuing these limited feasible gains. North Korea also makes it tricky to manage U.S. relations with Japan and South Korea, so it's a very, very difficult challenge and therefore hard to find people, including presidents, who say "yes, I'll put all the energy into this that I can." For example, President Obama has not personally and publicly given a lot of attention to the North Korean issue, whereas on Iran he has taken a lot of risks politically by dealing prominently in diplomacy. He gets attacked for this politically at home. Iran is more important in a lot of ways, and compared with North Korea, there is the potential of a major breakthrough with deep consequences. With North Korea I think that the best you can hope for right now is that it doesn't keep getting worse.

I should make one caveat or exception here, that is, it is necessary and feasible to focus a lot of attention in trying to interdict North Korea from supplying nuclear material, know-how and missiles, particularly to the Middle East. The Syrian case is an extremely important example. North Korea was helping Syria build a clandestine nuclear reactor, and this caught people by surprise. This project was rather advanced when it was discovered, and there were a lot of implications to it. North Korea's cooperation with Iran continues to be disturbing. And so there are real concerns about stopping the flow of nuclear and missile-related goods and services from North Korea. This can't be ignored, and fortunately, stopping further proliferation from North Korea may be a more achievable objective than getting the DPRK to roll back all its nuclear weapon capability. The outside world can act directly by interdicting DPRK transfers. You can physically stop it and you can apply sanctions that may cause the North Koreans to alter their proliferation behavior even if sanctions won't get them to give up all their nuclear capabilities.

There is another tendency, of course, which is to shift some burden onto China, arguing that China is the DPRK's closest partner. There is concern that China may not have the same commitment to changing North Korea's behavior and ultimately its government as the U.S., South Korea and Japan have. But even recognizing China's more mixed interests, there is also increasing awareness that China's influence is limited, too, and so there is no solution in blaming China. All the participants in the Six Party talks and the UN Security Council have to work hard on this to steer North Korea back into negotiations. Those negotiations would focus first on the transfer questions, of not exporting things of proliferation concern. All major powers, for the sake of the NPT and security of South Korea and Japan, need to insist on pressing the DPRK to uphold its earlier commitments and not to accept North Korea as a nuclear-weapon state. The objectives still have to be denuclearization and fulfillment of prior agreements to create a Korean Peninsula free of nuclear weapons. At the same time, to be practical it may make sense to focus on upholding international standards on not transferring nuclear material and know-how. There are some in the U.S. who argue that the best that can be done is to have a transactional relationship with the DPRK, and that transforming the relationship into something genuinely cooperative would take too long and involve opening many new lines of engagement. By focusing on providing incentives for the DPRK to stop proliferating nuclear and missile technology, other states could over time create conditions for transforming the relationship. I think that makes sense strategically, even if it was not possible politically during the Bush administration for a variety of reasons. It's probably difficult even now for political reasons in Washington, where the party that is not in the White House will be tempted to criticize any "concessions" that are not part of a bargain whereby North Korea commits to eliminate all its nuclear weapon capabilities and materials. This brings me back to my earlier point that it's difficult for anybody at a high political level to devote the time and energy to pursue a grand strategy with the DPRK. Do you focus on trying to prevent North Korea from testing another device or doing something more dramatic that makes everybody focus on great ambitions that are less likely to be achieved?

Let me now shift attention to the Nuclear Posture Review that has just been completed by the Obama Administration. One of the key issues in Beijing and Washington in recent years is whether the U.S. accepts a relationship of mutual vulnerability/mutual deterrence with China, or whether the U.S. believes that because China's nuclear capability is relatively small, the U.S., with a combination of advanced conventional strike weapons and missile defenses, could conceivably negate China's deterrent in a way and, basically, achieve dominance. This is something the Chinese are obviously worried about. Some on the Right of the American political spectrum argue that it is immoral of the U.S. not to seek to negate China's capacity to detonate nuclear weapons in the U.S. if the capability could be deployed to do this. Well, this nuclear posture review actually addresses these questions and does it in a very interesting and indirect way. Basically, it says that the U.S. will concentrate and pursue strategic dialogue with China to achieve and maintain strategic stability — number one. And number two, which is very interesting for Russia, it says the U.S. will treat Russia and China in the same light, pursuing strategic stability with both. Pentagon officials involved in the posture review have said that the document means that the U.S. accepts mutual vulnerability as a fact of life, as a reality. They say this cleverly by noting that the posture review talks about Russia and China in the same way and asking whether we accept vulnerability to Russia's strategic deterrent as a fact of life that cannot be removed by offensive or defensive weapons. The U.S. and Russia both accept that they cannot escape from being deterred by each other's offensive nuclear forces. We say that we seek the same sort of stability with China. So, if the U.S. says it wants to pursue strategic dialogue with China on stability, it is reasonable to expect China to want to discuss missile defense. And if missile defenses of a certain type and scale could affect strategic stability with China, it's reasonable to think the U.S. will need to address such concerns.

This is potentially a big development in this nuclear posture review that has not been adequately noticed. If you compare it to the posture review of the Bush administration, there is a whole element of deterrence that was referred to as dissuasion, where the idea was that the U.S. should keep such a large number of nuclear weapons that a competitor like China would not

dare to compete with the U.S. That's gone in the new posture review. So, in my opinion, this is a very important positive shift in the posture review.

There are other positive developments, particularly the negative security assurance, where the U.S. says it will not threaten to use nuclear weapons against a nonnuclear weapon state in the NPT that is in compliance with its NPT obligations. It's important; I think it's clear. It comes very close to saying that the sole purpose of U.S. nuclear weapons is to deter the use of nuclear weapons by others against the U.S. and its allies. It comes close to that and then says that the U.S. will seek to be able to say that in the future. The exclusions that make it not possible for the U.S. to say now that the sole purpose is nuclear deterrence have mainly to do with potential biological weapons threats that could emerge. The U.S. also stopped short of announcing a "sole purpose" doctrine because a couple of allies in consultation insisted that language not be included. "Sole purpose" would be disturbing, in particular, to South Korea, and the administration wants to maintain a very solid relationship with South Korea, especially as North Korea is still not cooperating. South Korea is so near to North Korea that even with a conventional attack North Korea could devastate Seoul very quickly, so the South Koreans did not want to take away a nuclear option to deter that. Some in the U.S. government were otherwise prepared to move to that position. Most at all, President Obama himself is very interested in no first use and asked several times why can't we declare no first use. After all, it is hard to think of a realistic scenario when the U.S. would feel it has no alternative but first use. Basically he got the message back that for a variety of reasons this would be too controversial, it would cost a lot at home and with South Korea and perhaps other allies. So the formulation that was adopted was close to no first use, but not all the way.

The last thing I will say about the posture review is that it's clear that the president and the military would like to go further and would like to reduce both the role and number of nuclear weapons further. In fact, the strategic command feels that the guidance that will be developed out of this posture review will enable them actually to cut below the limits under the new Start Treaty, so the treaty's limits are in a sense the upper limit. The so-called "tactical" nuclear weapons based in Europe are already discounted

from the posture and operational planning. These old aircraft-based weapons are not a part of it, so if NATO decided tomorrow that they wanted to remove those weapons, the Pentagon would not have to do anything different to make this happen. These weapons remain for political reasons, and it is NATO's decision in the NATO context. However, operationally the U.S. strategic weapons are what would be used to provide extended deterrence to allies.

Question: First of all, the posture review states that deterrence will be more and more based on conventional weapons. Does it relate to the strategic relationship with Russia and China, or Russia or China, or third states? And the second question: Is this substantial upload capability that the U.S. will gain as the result of the new START from 1300 to 2200 warheads, depending on whether you count missiles or not, some kind of precaution and insurance policy for the possibility of a Chinese nuclear build up?

Answer: On the first question, the conventional question, my sense from discussions I've had is that the increased reliance on conventional capability is everywhere. It is especially the case in Europe, but also for extended deterrence in the Middle East and in northeast Asia. My sense is that the military is well on the way to concentrating extended deterrence in conventional capabilities and not relying on nuclear weapons, but that the lag in declared policy has more to do with political considerations and waiting until the new Start Treaty is ratified. Regarding the upload potential, I just don't know the answer. There is some thought that keeping the upload potential is necessary to leverage the Congress to fund the U.S. nuclear weapons complex fully. If Congress gives the complex enough money, the laboratories and the Pentagon will feel the U.S. can safely dismantle more weapons and greatly reduce the upload potential, but if the complex cannot be modernized, then there may be a need to keep more weapons in reserve in case one type of warhead develops technical problems.



APPENDICES

УТВЕРЖДАЮ В ПЕЧАТЬ
Евсеев Владимир

APPENDIX 1

Memorandum of the Workshop of the International Luxembourg Forum on Preventing Nuclear Catastrophe (April 8-9, 2010, Vienna)

The participants of the Working Group have discussed the current state of the key issues of nuclear disarmament and non-proliferation. The most important forthcoming task is considered to be the successful outcome of the 2010 NPT Review Conference. The signing of the new START Treaty between Russia and the United States represents a significant contribution to its success. However, further efforts are needed to build on the success of the START talks and to sustain the momentum of nuclear disarmament as a principal condition of fortifying the NPT and its associated regimes and institutions. It is anticipated that the results of the Nuclear Security Summit will contribute to preventing the diversion of nuclear materials and technologies and thereby reduce the risk of nuclear terrorism and proliferation.

1. We consider prompt ratification of the new strategic arms reduction Treaty to be the next urgent goal of the U.S. and Russian legislative bodies.

2. We urge the leaders of Russia and the U.S. to proceed without delay in conducting consultations and negotiations on further nuclear disarmament agreements, in particular reductions and limitations of strategic and sub-strategic nuclear weapons.

3. We welcome the changes in the Russian and U.S. nuclear doctrines, which raise the nuclear threshold, diminish the role of nuclear weapons and en-

courage the nuclear weapon states to resolve the strategic problems that impede unequivocal nuclear no first use commitments.

4. We propose that the United States and Russia start consultations without delay on sub-strategic nuclear weapons with the goal of withdrawing them to centralized storage on national territories for eventual elimination along with strategic nuclear weapons stockpiles.

5. We encourage the U.S. and Russia to initiate the engagement of Britain, France and China as soon as possible into the process of limiting and enhancing the transparency of their nuclear arsenals.

6. An urgent step is the ratification and entry into force of the CTBT. All states that have ratified the CTBT, in cooperation with the CTBTO Preparatory Commission, should assist in the process of the ratification of this Treaty by the U.S., China and other key states.

7. We urge the governments currently blocking negotiations on the FMCT at the Conference on Disarmament in Geneva to change their position.

8. We consider universalization of the 1997 Additional Protocol to be an important means to increase confidence and security in the peaceful use of nuclear energy, and we encourage the 2010 NPT Review Conference to endorse this approach.

9. We appeal to the five NPT weapon states to voluntarily submit all their enrichment and reprocessing facilities to IAEA safeguards to encourage the universalization of the 1997 Additional Protocol.

10. All NPT States Parties should adopt national legislation and measures to give full effect to their obligations under the NPT.

11. We welcome the recent entry into force of the Central Asian and African NWFZs Treaties and urge all nuclear weapon states to adopt relevant protocols to these Treaties. We consider convening a conference on a nuclear weapons free zone in the Middle East with the participation of all relevant parties as one means of achieving the implementation of the 1995 NPT Review Conference resolution on the Middle East.

Recognizing the differences between the nuclear problems of Iran and North Korea, we consider their resolution to be of critical importance for the prevention of military conflict and ensuring the sustainability of the NPT.

12. We consider it necessary for the UN Security Council to adopt tougher non-military financial and economic sanctions in full accordance with Article 41

of the UN Charter. As a confidence building measure we support the process of exchanging LEU for research reactor fuel. We call on Iran to ratify and implement the 1997 Additional Protocol and abide by all other provisions of UN SC Resolutions and the IAEA request for full cooperation in resolving all outstanding issues, which will bring Iran into full compliance with its Safeguard Agreement with the IAEA. A positive response by Iran to these measures should lead to the easing of sanctions and increased cooperation with Iran on its economic development and legitimate political and security needs.

13. Russia, the U.S., China, Japan and South Korea should adopt a unified position with the goal of achieving the DPRK's implementation of its prior commitments to dismantle its military nuclear program and return to full compliance with its NPT obligations. It should also fully abide by UN SC resolutions on the subject of its missile program (Resolutions 1695, 1718, 1874). This approach should be supplemented by economic, political and humanitarian incentives to North Korea, including peaceful nuclear energy projects. The Six Party talks may serve as a useful starting point for a standing forum on regional security.

14. In light of the expanding scope of the IAEA's activities, a tangible increase of its budget is needed.

Members of the Supervisory and Advisory Councils of the International Luxembourg Forum

1. **Viatcheslav KANTOR** *President of the International Luxembourg Forum on Preventing Nuclear Catastrophe; President of the European Jewish Congress; Ph.D. (Russia).*
2. **Alexei ARBATOV** *Head of the Center for International Security of the IMEMO (RAS); Scholar-in-Residence of the Carnegie Moscow Center (former Deputy Chairman of the Defense Committee of the State Duma, Federal Assembly – Russian Parliament); Corresponding member (RAS, Russia).*

3. **Hans BLIX** *Ambassador (former Director General of the IAEA); Ph.D. (Sweden).*
4. **Vladimir DVORKIN** *Head of the Organizing Committee, International Luxembourg Forum; Principal Researcher of the IMEMO (RAS, former Director of the 4th Major Institute of the Ministry of Defense); Professor; Major-General, ret. (Russia).*
5. **Rolf EKEUS** *Chairman of the Governing Board, Stockholm International Peace Research Institute (former High Commissioner on National Minorities at the OSCE); Ambassador (Sweden).*
6. **Sergey OZNOBISHCHEV** *Director of the Institute for Strategic Assessments; Professor of the Moscow State Institute for International Relations and the Higher School of Economics (former Chief of the Organizational Analytic Division, RAS); Ph.D. (Russia).*
7. **George PERKOVICH** *Vice President for Studies and Director of the Non-Proliferation Program at the Carnegie Endowment for International Peace; Ph.D. (United States).*
8. **William POTTER** *Sam Nunn and Richard Lugar Professor of Non-Proliferation Studies and Director James Martin Center for Non-Proliferation Studies, Monterey Institute of International Studies; Ph.D. (United States).*
9. **Vladimir SAZHIN** *Senior Associate of the Department of the Middle East, Institute for Oriental Studies (RAS); Professor (Russia).*

APPENDIX 2

Normative Documents on Nuclear Non-Proliferation

2.1. The Treaty on the Non-Proliferation of Nuclear Weapons, July 1, 1968; Moscow, London and Washington

The States concluding this Treaty, hereinafter referred to as the «Parties to the Treaty»,

Considering the devastation that would be visited upon all mankind by a nuclear war and the consequent need to make every effort to avert the danger of such a war and to take measures to safeguard the security of peoples,

Believing that the proliferation of nuclear weapons would seriously enhance the danger of nuclear war,

In conformity with resolutions of the United Nations General Assembly calling for the conclusion of an agreement on the prevention of wider dissemination of nuclear weapons,

Undertaking to cooperate in facilitating the application of International Atomic Energy Agency safeguards on peaceful nuclear activities,

Expressing their support for research, development and other efforts to further the application, within the framework of the International Atomic Energy Agency safeguards system, of the principle of safeguarding effectively the flow of source and special fissionable materials by use of instruments and other techniques at certain strategic points,

Affirming the principle that the benefits of peaceful applications of nuclear technology, including any technological by-products

which may be derived by nuclear-weapon States from the development of nuclear explosive devices, should be available for peaceful purposes to all Parties of the Treaty, whether nuclear-weapon or non-nuclear weapon States,

Convinced that, in furtherance of this principle, all Parties to the Treaty are entitled to participate in the fullest possible exchange of scientific information for, and to contribute alone or in cooperation with other States to, the further development of the applications of atomic energy for peaceful purposes,

Declaring their intention to achieve at the earliest possible date the cessation of the nuclear arms race and to undertake effective measures in the direction of nuclear disarmament,

Urging the cooperation of all States in the attainment of this objective,

Recalling the determination expressed by the Parties to the 1963 Treaty banning nuclear weapon tests in the atmosphere, in outer space and under water in its Preamble to seek to achieve the discontinuance of all test explosions of nuclear weapons for all time and to continue negotiations to this end,

Desiring to further the easing of international tension and the strengthening of trust between States in order to facilitate

the cessation of the manufacture of nuclear weapons, the liquidation of all their existing stockpiles, and the elimination from national arsenals of nuclear weapons and the means of their delivery pursuant to a Treaty on general and complete disarmament under strict and effective international control,

Recalling that, in accordance with the Charter of the United Nations, States must refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any State, or in any other manner inconsistent with the Purposes of the United Nations, and that the establishment and maintenance of international peace and security are to be promoted with the least diversion for armaments of the world's human and economic resources,

Have agreed as follows:

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 of control over such weapons or explosive devices directly, or indirectly; 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

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 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. Procedures for the safeguards required by this article shall be followed with respect to source or special fissionable material whether it is being produced, processed or used in any principal nuclear facility or is outside any such facility. 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.
3. The safeguards required by this article shall be implemented in a manner designed to comply with article IV of this Treaty, and to avoid hampering the economic or technological development of the Parties or international cooperation in the field of peaceful nuclear activities, including the international exchange of

nuclear material and equipment for the processing, use or production of nuclear material for peaceful purposes in accordance with the provisions of this article and the principle of safeguarding set forth in the Preamble of the Treaty.

4. Non-nuclear-weapon States Party to the Treaty shall conclude agreements with the International Atomic Energy Agency to meet the requirements of this article either individually or together with other States in accordance with the Statute of the International Atomic Energy Agency. Negotiation of such agreements shall commence within 180 days from the original entry into force of this Treaty. For States depositing their instruments of ratification or accession after the 180-day period, negotiation of such agreements shall commence not later than the date of such deposit. Such agreements shall enter into force not later than eighteen months after the date of initiation of negotiations.

ARTICLE IV

1. 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.
2. All the Parties to the Treaty undertake to facilitate, and have the right to participate in, the fullest possible exchange of equipment, materials and scientific and technological information for the peaceful uses of nuclear energy. Parties to the Treaty in a position to do so shall also cooperate in contributing alone or together with other States or international organizations to the further development of the applications of nuclear energy for peaceful purposes, especially in the territories

of non-nuclear-weapon States Party to the Treaty, with due consideration for the needs of the developing areas of the world.

ARTICLE V

Each party to the Treaty undertakes to take appropriate measures to ensure that, in accordance with this Treaty, under appropriate international observation and through appropriate international procedures, potential benefits from any peaceful applications of nuclear explosions will be made available to non-nuclear-weapon States Party to the Treaty on a nondiscriminatory basis and that the charge to such Parties for the explosive devices used will be as low as possible and exclude any charge for research and development. Non-nuclear-weapon States Party to the Treaty shall be able to obtain such benefits, pursuant to a special international agreement or agreements, through an appropriate international body with adequate representation of non-nuclear-weapon States. Negotiations on this subject shall commence as soon as possible after the Treaty enters into force. Non-nuclear-weapon States Party to the Treaty so desiring may also obtain such benefits pursuant to bilateral agreements.

ARTICLE VI

Each of the Parties to the Treaty undertakes to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament, and on a Treaty on general and complete disarmament under strict and effective international control.

ARTICLE VII

Nothing in this Treaty affects the right of any group of States to conclude regional treaties in order to assure the total absence of nuclear weapons in their respective territories.

ARTICLE VIII

1. Any Party to the Treaty may propose amendments to this Treaty. The text of any proposed amendment shall be submitted to the Depositary Governments which shall circulate it to all Parties to the Treaty. Thereupon, if requested to do so by one-third or more of the Parties to the Treaty, the Depositary Governments shall convene a conference, to which they shall invite all the Parties to the Treaty, to consider such an amendment.
2. Any amendment to this Treaty must be approved by a majority of the votes of all the Parties to the Treaty, including the votes of all nuclear-weapon States Party to the Treaty and all other Parties which, on the date the amendment is circulated, are members of the Board of Governors of the International Atomic Energy Agency. The amendment shall enter into force for each Party that deposits its instrument of ratification of the amendment upon the deposit of such instruments of ratification by a majority of all the Parties, including the instruments of ratification of all nuclear-weapon States Party to the Treaty and all other Parties which, on the date the amendment is circulated, are members of the Board of Governors of the International Atomic Energy Agency. Thereafter, it shall enter into force for any other Party upon the deposit of its instrument of ratification of the amendment.
3. Five years after the entry into force of this Treaty, a conference of Parties to the Treaty shall be held in Geneva, Switzerland, in order to review the operation of this Treaty with a view to assuring that the purposes of the Preamble and the provisions of the Treaty are being realized. At intervals of five years thereafter, a majority of the Parties to the Treaty may obtain, by submitting a proposal to this effect to the Depositary Governments,

the convening of further conferences with the same objective of reviewing the operation of the Treaty.

ARTICLE IX

1. This Treaty shall be open to all States for signature. Any State which does not sign the Treaty before its entry into force in accordance with paragraph 3 of this article may accede to it at any time.
2. This Treaty shall be subject to ratification by signatory States. Instruments of ratification and instruments of accession shall be deposited with the Governments of the United States of America, the United Kingdom of Great Britain and Northern Ireland and the Union of Soviet Socialist Republics, which are hereby designated the Depositary Governments.
3. This Treaty shall enter into force after its ratification by the States, the Governments of which are designated Depositaries of the Treaty, and forty other States signatory to this Treaty and the deposit of their instruments of ratification. For the purposes of this Treaty, a nuclear-weapon State is one which has manufactured and exploded a nuclear weapon or other nuclear explosive device prior to January 1, 1967.
4. For States whose instruments of ratification or accession are deposited subsequent to the entry into force of this Treaty, it shall enter into force on the date of the deposit of their instruments of ratification or accession.
5. The Depositary Governments shall promptly inform all signatory and acceding States of the date of each signature, the date of deposit of each instrument of ratification or of accession, the date of the entry into force of this Treaty, and the date of receipt of any requests for convening a conference or other notices.

6. This Treaty shall be registered by the Depositary Governments pursuant to article 102 of the Charter of the United Nations.

taken by a majority of the Parties to the Treaty.

ARTICLE X

- Each Party shall in exercising its national sovereignty have the right to withdraw from the Treaty if it decides that extraordinary events, related to the subject matter of this Treaty, have jeopardized the supreme interests of its country. It shall give notice of such withdrawal to all other Parties to the Treaty and to the United Nations Security Council three months in advance. Such notice shall include a statement of the extraordinary events it regards as having jeopardized its supreme interests.
- Twenty-five years after the entry into force of the Treaty, a conference shall be convened to decide whether the Treaty shall continue in force indefinitely, or shall be extended for an additional fixed period or periods. This decision shall be

ARTICLE XI

This Treaty, the English, Russian, French, Spanish and Chinese texts of which are equally authentic, shall be deposited in the archives of the Depositary Governments. Duly certified copies of this Treaty shall be transmitted by the Depositary Governments to the Governments of the signatory and acceding States.

IN WITNESS WHEREOF the undersigned, duly authorized, have signed this Treaty.

DONE in triplicate, at the cities of Washington, London and Moscow, this first day of July one thousand nine hundred sixty-eight.

Source: Roland Timerbaev, *Russia and Nuclear Non-Proliferation, 1945-1968* (Moscow, 1999), pp.354—359.

2.2. United Nations Security Council Resolution 1874 (North Korea), June 12, 2009; New-York

The Security Council,

Recalling its previous relevant resolutions, including resolution 825 (1993), resolution 1540 (2004), resolution 1695 (2006), and, in particular, resolution 1718 (2006), as well as the statements of its President of 6 October 2006 (S/PRST/2006/41) and 13 April 2009 (S/PRST/2009/7),

Reaffirming that proliferation of nuclear, chemical and biological weapons, as well as their means of delivery, constitutes a threat to international peace and security,

Expressing the gravest concern at the nuclear test conducted by the Democratic People's Republic of Korea ("the DPRK") on 25 May 2009 (local time) in violation of resolution 1718 (2006), and at the challenge such a test constitutes to the Treaty on Non-Proliferation of Nuclear Weapons ("the NPT") and to international efforts aimed at strengthening the global regime of non-proliferation of nuclear weapons towards the 2010 NPT Review Conference, and the danger it poses to peace and stability in the region and beyond,

Stressing its collective support for the NPT and commitment to strengthen the Treaty in all its aspects, and global efforts towards nuclear non-proliferation and nuclear disarmament, and recalling that the DPRK cannot

have the status of a nuclear-weapon state in accordance with the NPT in any case,

Deploring the DPRK's announcement of withdrawal from the NPT and its pursuit of nuclear weapons,

Underlining once again the importance that the DPRK respond to other security and humanitarian concerns of the international community,

Underlining also that measures imposed by this resolution are not intended to have adverse humanitarian consequences for the civilian population of the DPRK,

Expressing its gravest concern that the nuclear test and missile activities carried out by the DPRK have further generated increased tension in the region and beyond, and determining that there continues to exist a clear threat to international peace and security,

Reaffirming the importance that all Member States uphold the purposes and principles of the Charter of the United Nations,

Acting under Chapter VII of the Charter of the United Nations, and taking measures under its Article 41,

- Condemns* in the strongest terms the nuclear test conducted by the DPRK on 25

- May 2009 (local time) in violation and flagrant disregard of its relevant resolutions, in particular resolutions 1695 (2006) and 1718 (2006), and the statement of its President of 13 April 2009 (S/PRST/2009/7);
2. *Demands* that the DPRK not conduct any further nuclear test or any launch using ballistic missile technology;
 3. *Decides* that the DPRK shall suspend all activities related to its ballistic missile programme and in this context re-establish its pre-existing commitments to a moratorium on missile launches;
 4. *Demands* that the DPRK immediately comply fully with its obligations under relevant Security Council resolutions, in particular resolution 1718 (2006);
 5. *Demands* that the DPRK immediately retract its announcement of withdrawal from the NPT;
 6. *Demands* further that the DPRK return at an early date to the NPT and International Atomic Energy Agency (IAEA) safeguards, bearing in mind the rights and obligations of States Parties to the NPT, and underlines the need for all States Parties to the NPT to continue to comply with their Treaty obligations;
 7. *Calls upon* all Member States to implement their obligations pursuant to resolution 1718 (2006), including with respect to designations made by the Committee established pursuant to resolution 1718 (2006) ("the Committee") pursuant to the statement of its President of 13 April 2009 (S/PRST/2009/7);
 8. *Decides* that the DPRK shall abandon all nuclear weapons and existing nuclear programs in a complete, verifiable and irreversible manner and immediately cease all related activities, shall act strictly in accordance with the obligations applicable to parties under the NPT and the terms and conditions of the IAEA Safeguards Agreement (IAEA INFCIRC/403) and shall provide the IAEA transparency measures extending beyond these requirements, including such access to individuals, documentation, equipment and facilities as may be required and deemed necessary by the IAEA;
 9. *Decides* that the measures in paragraph 8 (b) of resolution 1718 (2006) shall also apply to all arms and related materiel, as well as to financial transactions, technical training, advice, services or assistance related to the provision, manufacture, maintenance or use of such arms or materiel;
 10. *Decides* that the measures in paragraph 8 (a) of resolution 1718 (2006) shall also apply to all arms and related materiel, as well as to financial transactions, technical training, advice, services or assistance related to the provision, manufacture, maintenance or use of such arms, except for small arms and light weapons and their related materiel, and calls upon States to exercise vigilance over the direct or indirect supply, sale or transfer to the DPRK of small arms or light weapons, and further decides that States shall notify the Committee at least five days prior to selling, supplying or transferring small arms or light weapons to the DPRK;
 11. *Calls upon* all States to inspect, in accordance with their national authorities and legislation, and consistent with international law, all cargo to and from the DPRK, in their territory, including seaports and airports, if the State concerned has information that provides reasonable grounds to believe the cargo contains items the supply, sale, transfer, or export of which is prohibited by paragraph 8 (a), 8 (b), or 8 (c) of resolution 1718 or by paragraph 9 or 10 of this resolution, for the purpose of ensuring strict implementation of those provisions;
 12. *Calls upon* all Member States to inspect vessels, with the consent of the flag State, on the high seas, if they have information that provides reasonable grounds to believe that the cargo of such vessels contains items the supply, sale, transfer, or export of which is prohibited by paragraph 8 (a), 8 (b), or 8 (c) of resolution 1718 (2006) or by paragraph 9 or 10 of this resolution, for the purpose of ensuring strict implementation of those provisions;
 13. *Calls upon* all States to cooperate with inspections pursuant to paragraphs 11 and 12, and, if the flag State does not consent to inspection on the high seas, decides that the flag State shall direct the vessel to proceed to an appropriate and convenient port for the required inspection by the local authorities pursuant to paragraph 11;
 14. *Decides* to authorize all Member States to, and that all Member States shall, seize and dispose of items the supply, sale, transfer, or export of which is prohibited by paragraph 8 (a), 8 (b), or 8 (c) of resolution 1718 or by paragraph 9 or 10 of this resolution that are identified in inspections pursuant to paragraph 11, 12, or 13 in a manner that is not inconsistent with their obligations under applicable Security Council resolutions, including resolution 1540 (2004), as well as any obligations of parties to the NPT, the Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction of 29 April 1997, and the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction of 10 April 1972, and decides further that all States shall cooperate in such efforts;
 15. *Requires* any Member State, when it undertakes an inspection pursuant to paragraph 11, 12, or 13, or seizes and disposes of cargo pursuant to paragraph 14, to submit promptly reports containing relevant details to the Committee on the inspection, seizure and disposal;
 16. *Requires* any Member State, when it does not receive the cooperation of a flag State pursuant to paragraph 12 or 13 to submit promptly to the Committee a report containing relevant details;
 17. *Decides* that Member States shall prohibit the provision by their nationals or from their territory of bunkering services, such as provision of fuel or supplies, or other servicing of vessels, to DPRK vessels if they have information that provides reasonable grounds to believe they are carrying items the supply, sale, transfer, or export of which is prohibited by paragraph 8 (a), 8 (b), or 8 (c) of resolution 1718 (2006) or by paragraph 9 or 10 of this resolution, unless provision of such services is necessary for humanitarian purposes or until such time as the cargo has been inspected, and seized and disposed of if necessary, and underlines that this paragraph is not intended to affect legal economic activities;
 18. *Calls upon* Member States, in addition to implementing their obligations pursuant to paragraphs 8 (d) and (e) of resolution 1718 (2006), to prevent the provision of financial services or the transfer to, through, or from their territory, or to or by their nationals or entities organized under their laws (including branches abroad), or persons or financial institutions in their territory, of any financial or other assets or resources that could contribute to the DPRK's nuclear-related, ballistic missile-related, or other weapons of mass destruction-related programs or activities, including by freezing any financial or other assets or resources on their territories or that hereafter come within their territories, or that are subject to their jurisdiction;

- tion or that hereafter become subject to their jurisdiction, that are associated with such programs or activities and applying enhanced monitoring to prevent all such transactions in accordance with their national authorities and legislation;
19. *Calls upon* all Member States and international financial and credit institutions not to enter into new commitments for grants, financial assistance, or concessional loans to the DPRK, except for humanitarian and developmental purposes directly addressing the needs of the civilian population, or the promotion of denuclearization, and also calls upon States to exercise enhanced vigilance with a view to reducing current commitments;
 20. *Calls upon* all Member States not to provide public financial support for trade with the DPRK (including the granting of export credits, guarantees or insurance to their nationals or entities involved in such trade) where such financial support could contribute to the DPRK's nuclear-related or ballistic missile-related or other WMD-related programs or activities;
 21. *Emphasizes* that all Member States should comply with the provisions of paragraphs 8 (a) (iii) and 8 (d) of resolution 1718 (2006) without prejudice to the activities of the diplomatic missions in the DPRK pursuant to the Vienna Convention on Diplomatic Relations;
 22. *Calls upon* all Member States to report to the Security Council within forty-five days of the adoption of this resolution and thereafter upon request by the Committee on concrete measures they have taken in order to implement effectively the provisions of paragraph 8 of resolution 1718 (2006) as well as paragraphs 9 and 10 of this resolution, as well as financial measures set out in paragraphs 18, 19 and 20 of this resolution;
 23. *Decides* that the measures set out at paragraphs 8 (a), 8 (b) and 8 (c) of resolution 1718 (2006) shall also apply to the items listed in INFCIRC/254/Rev.9/Part 1a and INFCIRC/254/Rev.7/Part 2a;
 24. *Decides* to adjust the measures imposed by paragraph 8 of resolution 1718 (2006) and this resolution, including through the designation of entities, goods, and individuals, and directs the Committee to undertake its tasks to this effect and to report to the Security Council within thirty days of adoption of this resolution, and further decides that, if the Committee has not acted, then the Security Council will complete action to adjust the measures within seven days of receiving that report;
 25. *Decides* that the Committee shall intensify its efforts to promote the full implementation of resolution 1718 (2006), the statement of its President of 13 April 2009 (S/PRST/2009/7) and this resolution, through a work programme covering compliance, investigations, outreach, dialogue, assistance and cooperation, to be submitted to the Council by 15 July 2009, and that it shall also receive and consider reports from Member States pursuant to paragraphs 10, 15, 16 and 22 of this resolution;
 26. *Requests* the Secretary-General to create for an initial period of one year, in consultation with the Committee, a group of up to seven experts ("Panel of Experts"), acting under the direction of the Committee to carry out the following tasks: (a) assist the Committee in carrying out its mandate as specified in resolution 1718 (2006) and the functions specified in paragraph 25 of this resolution; (b) gather, examine and analyze information from States, relevant United Nations bodies and other interested parties regarding the implementation of the measures imposed in resolution 1718 (2006) and in this resolution, in particular incidents of non-compliance; (c) make recommendations on actions the Council, or the Committee or Member States, may consider to improve implementation of the measures imposed in resolution 1718 (2006) and in this resolution; and (d) provide an interim report on its work to the Council no later than 90 days after adoption of this resolution, and a final report to the Council no later than 30 days prior to termination of its mandate with its findings and recommendations;
 27. *Urges* all States, relevant United Nations bodies and other interested parties, to cooperate fully with the Committee and the Panel of Experts, in particular by supplying any information at their disposal on the implementation of the measures imposed by resolution 1718 (2006) and this resolution;
 28. *Calls upon* all Member States to exercise vigilance and prevent specialized teaching or training of DPRK nationals within their territories or by their nationals, of disciplines which could contribute to the DPRK's proliferation sensitive nuclear activities and the development of nuclear weapon delivery systems;
 29. *Calls upon* the DPRK to join the Comprehensive Nuclear-Test-Ban Treaty at the earliest date;
 30. *Supports* peaceful dialogue, calls upon the DPRK to return immediately to the Six Party Talks without precondition, and urges all the participants to intensify their efforts on the full and expeditious implementation of the Joint Statement issued on 19 September 2005 and the joint documents of 13 February 2007 and 3 October 2007, by China, the DPRK, Japan, the Republic of Korea, the Russian Federation and the United States, with a view to achieving the verifiable denuclearization of the Korean Peninsula and to maintain peace and stability on the Korean Peninsula and in north-east Asia;
 31. *Expresses* its commitment to a peaceful, diplomatic and political solution to the situation and welcomes efforts by Council members as well as other Member States to facilitate a peaceful and comprehensive solution through dialogue and to refrain from any actions that might aggravate tensions;
 32. *Affirms* that it shall keep the DPRK's actions under continuous review and that it shall be prepared to review the appropriateness of the measures contained in paragraph 8 of resolution 1718 (2006) and relevant paragraphs of this resolution, including the strengthening, modification, suspension or lifting of the measures, as may be needed at that time in light of the DPRK's compliance with relevant provisions of resolution 1718 (2006) and this resolution;
 33. *Underlines* that further decisions will be required, should additional measures be necessary;
 34. *Decides* to remain actively seized of the matter.
- Source:** United Nations Security Council Resolution 1874/ United Nations' official site// <http://daccess-dds-ny.un.org/doc/UNDOC/GEN/N09/368/49/PDF/N0936849.pdf?OpenElement>.

2.3. Implementation of the NPT Safeguards Agreement and Relevant Provisions of Security Council Resolution 1737 (2006), 1747 (2007), 1803 (2008), and 1835 (2008) in the Islamic Republic of Iran, May 31, 2010; Vienna

A report of the International Atomic Energy Agency Director General

1. On 18 February 2010, the Director General reported to the Board of Governors on the implementation of the NPT Safeguards Agreement and relevant provisions of Security Council resolutions 1737 (2006), 1747 (2007), 1803 (2008) and 1835 (2008) in the Islamic Republic of Iran (Iran) (GOV/2010/10). This report covers developments since that date.

A. Current Enrichment Related Activities

A.1. Natanz: Fuel Enrichment Plant and Pilot Fuel Enrichment Plant

2. Fuel Enrichment Plant (FEP): There are two cascade halls at FEP: Production Hall A and Production Hall B. According to the design information submitted by Iran, eight units (Units A21 to A28) are planned for Production Hall A, with 18 cascades in each unit. No detailed design information has been provided for Production Hall B.

3. On 24 May 2010, Iran was feeding natural UF₆ into all 18 cascades of Unit A24, and 6

cascades of Unit A26, at FEP. Sixteen cascades of Unit A28 and the remaining 12 cascades of Unit A26 (seven cascades of which were under vacuum) were also installed, but were not being fed with UF₆.¹ To date, all the centrifuges installed are IR-1 machines, of which there are 164 in each cascade. Installation work in Units A21, A22, A23, A25 and A27 was ongoing but no centrifuges had been installed. As of 4 May 2010, there had been no installation work in Production Hall B.

4. As reported previously, the Agency conducted a physical inventory verification (PIV) at FEP and verified that, as of 22 November 2009, 21 140 kg of natural UF₆ had been fed into the cascades since production first began in February 2007, and a total of 1808 kg of low enriched UF₆ had been produced.² While the Agency was able to confirm the total amount of

¹ On 24 May 2010, of the 8528 centrifuges which had been installed at FEP, 3936 centrifuges were being fed with UF₆.

² The Agency also verified that, at the time of the PIV, 2026 kg of UF₆ enriched to 0.97% U-235 was present in the dump cylinder and another 516 kg of UF₆ enriched to 0.72% U-235 was present in the feed purification cylinder.

uranium, there is a difference between the Agency's measurement and the operator's measurement of the U-235 enrichment level for the enriched material in the product cylinder. The Agency informed Iran of this in a letter dated 13 April 2010, and is discussing with Iran how Iran can improve the operator's measurement system in this regard.

5. Iran has estimated that, between 23 November 2009 and 1 May 2010, it produced an additional 619 kg of low enriched UF₆,³ which would result in a total production of 2427 kg of low enriched UF₆ since February 2007. The nuclear material at FEP (including the feed, product and tails), as well as all installed cascades and the feed and withdrawal stations, are subject to Agency containment and surveillance.⁴

6. As of 1 March 2010, the results of the environmental samples taken at FEP indicate that the maximum enrichment level in the Design Information Questionnaire (DIQ) (i.e. less than 5.0% U-235 enrichment) has not been exceeded at that plant.⁵ Since the last report, the Agency has conducted three unannounced inspections at FEP, making a total of 38 such inspections since March 2007.

³ The Agency has verified, through independently calibrated operator load cell readings, that, between 23 November 2009 and 1 May 2010, 6436 kg of natural UF₆ was fed into the cascades, and a total of 581 kg of low enriched UF₆ product and 5785 kg of UF₆ tails and dump material was off-loaded into UF₆ cylinders. The difference of 70 kg between the input figure (6436 kg) and the sum of the output figures (581 kg + 5785 kg) comprises natural, depleted and low enriched UF₆ arising mainly from hold-up in the various cold traps and is not inconsistent with the design information provided by Iran.

⁴ In line with normal safeguards practice, small amounts of nuclear material at the facility (e.g. some waste and samples) are not under containment and surveillance.

⁵ These results have shown particles of low enriched uranium (with up to 4.8% U-235), natural uranium and depleted uranium (down to 0.19% U-235).

7. **Pilot Fuel Enrichment Plant (PFEP):** PFEP is a research and development (R&D) facility and a pilot low enriched uranium (LEU) production facility which was brought into operation for the first time in October 2003. It has a cascade hall that can accommodate six cascades. Cascades 1 and 6, each of which can comprise up to 164 machines, are designated for the production of LEU enriched up to 20% U-235. The other part of the cascade hall is designated as an R&D area.

8. In the R&D area of PFEP, between 3 February 2010 and 21 May 2010, a total of approximately 74 kg of natural UF₆ was fed into a 20-machine IR-4 cascade, a 20-machine IR-2m cascade and single IR-1, IR-2m and IR-4 centrifuges. In this area no LEU is withdrawn because the product and the tails of this R&D activity are re-combined at the end of the process.

9. As reported previously, on 8 February 2010 the Agency received a letter from Iran referring to "the announcement made by H.E. the President of the Islamic Republic of Iran concerning the production of the required fuel for the Tehran Research Reactor" and, in that regard, submitting a revised version of the DIQ for PFEP. This revised DIQ provided for the "production of enriched UF₆ up to 20%". On 9 February 2010, Iran began feeding low enriched UF₆ into cascade 1. In a letter dated 10 March 2010, Iran informed the Agency that it intended to install a second 164-machine IR-1 cascade (cascade 6) at PFEP and connect it to cascade 1. In the same letter, Iran stated that "by applying this modification the enrichment of Tails [is] expected to be reduced from ~2% to ~0.7% U-235".

10. In reply to Iran's letter of 10 March 2010, the Agency informed Iran, in a letter dated 12 March 2010, that the introduction of the second 164-machine cascade

and its interconnection with the first 164-machine cascade would constitute a new and significant development in the design and operation of PFEP that required a full revision of the previous safeguards approach proposed by the Agency and communicated to Iran in February 2010.⁶ In the same letter, the Agency requested Iran not to start feeding UF6 into the second cascade until a new safeguards approach was agreed upon. On 7 April 2010, when the Agency carried out an inspection, Iran had installed all the centrifuges of the second 164-machine cascade, and the cascade had been vacuum tested in preparation for its passivation with natural UF6. As of 25 May 2010, Iran had neither started to feed this cascade, nor connected it to the first cascade.

11. Following meetings held in Iran in April 2010, the Agency provided, in a letter dated 6 May 2010, a revised safeguards approach to Iran, to which, in a letter dated 12 May 2010, Iran agreed. The approach takes into account, inter alia, the enrichment of uranium up to 20% U-235 and the installation of the second cascade, and includes the following measures: a monthly interim inventory verification (IIV), a monthly design information verification (DIV), and two unannounced inspections per month; the application of seals on all possible exit routes for UF6 and on all pipework connections between the areas used for testing new centrifuges and the areas used for the production of uranium enriched up to 20%; an enhanced surveillance system in the cascade area and the feed and withdrawal area; the use of load cell data; and the taking of destructive analysis samples, including from the cascades. On 24–25 April 2010, the Agency applied all the seals and installed all the surveillance cameras as required under

⁶ GOV/2010/10, para. 13.

the revised safeguards approach. As of 15 May 2010, the Agency has been implementing the revised approach, and has, since then, conducted two unannounced inspections.

12. Between 9 February 2010 and 21 May 2010, a total of approximately 172 kg of low enriched UF6 was fed into the first cascade. On 7 April 2010, Iran withdrew 5.7 kg of UF6 from the first cascade and stored it in a small (5B) cylinder. According to Iran, this UF6 was enriched to 19.7% U-235.⁷ This material is now under containment and surveillance. Iran has informed the Agency that, following the next withdrawal of UF6 into the same cylinder, which is planned soon, the material in this cylinder will be homogenized. After the homogenization, the Agency will sample this material for destructive analysis to accurately verify the enrichment level declared by Iran.

13. Since the Director General's last report, Iran has informed the Agency that it intends to continue to transfer UF6 enriched at FEP into a number of smaller cylinders for later use as LEU feed material at PFEP. The latest transfer took place on 24 May 2010. All transfers have been carried out in the presence of Agency inspectors, who then sealed all of the cylinders involved.

A.2. Qom: Fordow Fuel Enrichment Plant

14. In September 2009, Iran informed the Agency that it was constructing the Fordow Fuel Enrichment Plant (FFEP), located near the city of Qom. The Agency verified that FFEP is currently being built to contain sixteen cascades, with a total of approximately 3000 centrifuges.⁸

⁷ Non-destructive assay measurements by the Agency of the material in this cylinder indicated an enrichment of 19.3% U-235.

⁸ GOV/2010/10, para. 14.

15. The Agency has asked Iran on a number of occasions to provide additional information regarding the chronology of the design and construction of FFEP, as well as its status and original purpose.⁹ In response to these requests, Iran has stated that "The location [near Qom] originally was considered as a general area for passive defence contingency shelters for various utilizations. Then this location was selected for the construction of [the] Fuel Enrichment Plant in the second half of 2007". The Agency has also reiterated the need for access to companies involved in the design and construction of FFEP. The Agency informed Iran that it had received extensive information from a number of sources alleging that design work on the facility had started in 2006.¹⁰ In its letters dated 14 February 2010 and 17 February 2010, Iran referred to its earlier answers on this subject and indicated that "the Agency is not mandated to raise any question beyond the Safeguards Agreement". The Agency considers that the questions it has raised do not go beyond the Safeguards Agreement, and that the information requested is essential for the Agency to verify the chronology and original purpose of FFEP.¹¹

16. In a letter dated 22 January 2010, the Agency reiterated its request that Iran submit a complete DIQ for FFEP. In its reply, dated 17 February 2010, Iran said that updates to the DIQ would be provided subsequently. In the Agency's view, some of the required information is already available to Iran and should already have been included in the DIQ.

17. Since October 2009, the Agency has been conducting, on average, one DIV at FFEP per month. The Agency has verified that

⁹ GOV/2010/10, paras 14–16.

¹⁰ GOV/2010/10, para. 15.

¹¹ GOV/2010/10, para. 14.

the construction of the facility is ongoing. As of 26 May 2010, no centrifuges had been introduced into the facility. The results of the environmental samples taken at FFEP up to 16 February 2010 did not indicate the presence of enriched uranium.¹²

A.3. Other Enrichment Related Activities

18. In light of the announcement made by Iran on 9 April 2010 regarding the development of 'third generation' centrifuges, the Agency, in a letter to Iran dated 23 April 2010, reiterated its previous requests that Iran provide access to additional locations related, inter alia, to the manufacturing of centrifuges, R&D on uranium enrichment, and uranium mining and milling.¹³ In a letter dated 8 May 2010, Iran reiterated that it was "continuing to cooperate with the Agency in accordance with its Safeguards Agreement", but it did not provide the Agency with the requested information.

B. Reprocessing Activities

19. The Agency has continued to monitor the use and construction of hot cells at the Tehran Research Reactor (TRR) and the Molybdenum, Iodine and Xenon Radioisotope Production (MIX) Facility. The Agency carried out an inspection and a DIV at TRR on 11 May 2010 and carried out a DIV at the MIX Facility on 12 May 2010. There were no indications of ongoing reprocessing related activities at those facilities. While Iran has stated that there have been no reprocessing related activities in Iran, the Agency can confirm this only with respect to these two facilities, as the measures of the Additional Protocol are not currently available to it for Iran.

¹² The results did show a small number of particles of depleted uranium (see GOV/2010/10, para. 17).

¹³ GOV/2008/15, para. 13.

C. Heavy Water Related Projects

20. As indicated in the Director General's previous report, in a letter dated 15 February 2010, the Agency requested that Iran make the necessary arrangements to provide the Agency, at the earliest possible date, with access to: the Heavy Water Production Plant (HWPP); the heavy water stored at the Uranium Conversion Facility (UCF) for the taking of samples;¹⁴ and any other location in Iran where projects related to heavy water are being carried out. In its reply dated 17 February 2010, Iran indicated that the Agency's request for access was "beyond our safeguards agreement", and stated that the relevant UN Security Council resolutions had been "issued illegally and have no legal basis". To date, Iran has not provided the requested access.
21. On 15 May 2010, the Agency carried out a DIV at the IR-40 reactor at Arak. The Agency verified that the construction of the facility was ongoing. Based on satellite imagery, the HWPP appears to be in operation again.¹⁵ However, in order for the Agency to verify the suspension of heavy water related activities at this plant, and given that satellite images can only provide information on what is happening at the time they are taken, the Agency requires access to the HWPP.
22. On 16 May 2010, the Agency carried out a DIV at the Fuel Manufacturing Plant (FMP), and confirmed that no new process equipment had been installed at the facility and that no new assemblies, rods or pellets had been produced at FMP since May 2009.

D. Uranium Conversion

¹⁴ GOV/2010/10, paras 20 and 21.

¹⁵ As previously indicated to the Board, in light of Iran's refusal to permit the Agency access to the HWPP, the Agency has had to rely solely on satellite imagery.

23. In an updated DIQ for UCF submitted in August 2009, Iran indicated that it would install an analytical laboratory in an underground location in one of the UCF storage areas.¹⁶ In a letter dated 17 February 2010, Iran informed the Agency that the underground analytical laboratory at UCF would have the same functions as the existing UCF laboratory, but that it was going to be set up underground in order "to meet security measures". During a DIV on 18 May 2010, the Agency noted that there had been no further installation of laboratory equipment.

24. In a letter dated 17 March 2010, Iran informed the Agency that, "in connection with nuclear fuel fabrication for the Tehran Research Reactor (TRR), part of... [UCF] is allocated for this purpose, and some structural modifications will be started in near future". In a letter dated 28 April 2010, Iran provided additional information regarding R&D activities to be conducted at UCF related to the conversion of depleted UF₆ to depleted U₃O₈. According to Iran, the results of these conversion R&D activities will be used, inter alia, to prepare for the fabrication of fuel for the TRR.

25. Between 7 March and 11 March 2010, the Agency carried out a PIV at UCF, during which Iran presented 352 tonnes of uranium in the form of UF₆ for the Agency to verify. The results of this PIV are being evaluated by the Agency.

26. On 18 May 2010, the Agency carried out a DIV at UCF. At that time the plant was still undergoing maintenance. As no UF₆ has been produced at UCF since 10 August 2009, the total amount of uranium in the form of UF₆ produced at UCF since March 2004 remains 371 tonnes (some of which has been transferred to FEP and

¹⁶ GOV/2009/74, para. 23.

PFEP), which remains subject to Agency containment and surveillance. During the DIV, inspectors were informed by Iran that the process line for the production of natural UO₂ for the IR-40 reactor fuel is now expected to be completed by September or October 2010.¹⁷

E. Other Activities

27. Iran has informed the Agency that it will perform a technical examination of fuel assemblies prior to loading them into the core of the Bushehr Nuclear Power Plant (BNPP), currently scheduled for June 2010. Immediately following this examination, and before loading commences, the Agency plans to re-verify the fuel assemblies, after which they will again be placed under containment and surveillance, the details of which are being discussed with Iran.

28. On 9 January 2010, during a DIV at the Jabr Ibn Hayan Multipurpose Research Laboratory (JHL) in Tehran, the Agency was informed by the operator that pyro-processing R&D activities had been initiated at JHL to study the electrochemical production of uranium metal. On 14 April 2010, the Agency conducted another DIV at the JHL, during which Iran reiterated what it had stated in its letter dated 21 February 2010, specifically that the activities were related to "a research project aiming purely [at] studying the electrochemical behaviour of uranyl ion in ionic liquid", using a uranyl nitrate solution. During the latter DIV, the Agency observed that the electrochemical cell had been removed.

29. Based on satellite imagery, the Agency assesses that activities involving the recovery of uranium are continuing in the area of the Bandar Abbas Uranium Pro-

¹⁷ GOV/2010/10, para. 25.

duction Plant, and that construction activities are continuing at the Ardakan Yellowcake Production Plant. Currently, the Saghand Uranium Mine does not appear to be in operation.

F. Design Information

30. As explained in previous reports of the Director General, the modified Code 3.1 of the Subsidiary Arrangements General Part to Iran's Safeguards Agreement, as agreed to by Iran in 2003, remains in force, notwithstanding Iran's decision in 2007 to suspend its implementation.¹⁸ Although the Agency has, on numerous occasions, reminded Iran that it is obliged to provide design information in accordance with the modified Code 3.1, Iran has not resumed implementation of the modified Code 3.1, which is inconsistent with its obligation under the Subsidiary Arrangements. Iran remains the only State with significant nuclear activities which has a comprehensive safeguards agreement in force that is not implementing the provisions of the modified Code 3.1.

31. In the case of both the Darkhovin facility and FFEP, Iran did not notify the Agency in a timely manner of the decision to construct, or to authorize construction of, the facilities, as required in the modified Code 3.1, and has provided only limited design information with respect to those facilities.¹⁹ Iran has also not provided updated design information for the IR-40 reactor.

32. In December 2009, the Agency asked Iran whether reports that it intended to build ten new uranium enrichment facilities were correct. Iran subsequently stated that it would "provide the Agency with the required information if necessary".²⁰

¹⁸ GOV/2010/10, paras 28–30.

¹⁹ GOV/2010/10, para. 31.

²⁰ GOV/2010/10, para. 33.

In a letter to Iran dated 5 May 2010, the Agency requested clarification of the public statement made in Iran on 19 April 2010 announcing that "the venue of new sites has been located according to atomic energy organization plan and the process of building these centres continues".²¹ The Agency informed Iran that, if a decision to construct new nuclear facilities had been taken by Iran, Iran was required to submit information to the Agency regarding the design, and scheduling of the construction, of the facilities. In its reply, dated 11 May 2010, Iran did not provide the requested information and stated only that it would provide the Agency "with the required information in due time ... according to the Safeguards Agreement".

33. The modification of PFEP to produce uranium enriched up to 20% in U-235, which is clearly relevant for safeguards purposes, was not notified to the Agency by Iran with sufficient time for the Agency to adjust its safeguards procedures, as required under Article 45 of Iran's Safeguards Agreement.²²

G. Possible Military Dimensions

34. Previous reports by the Director General have detailed the outstanding issues related to possible military dimensions to Iran's nuclear programme and the actions required of Iran necessary to resolve those issues.²³ In the Director General's last report, the Agency described

²¹ Mujtaba Samareh Hashemi, aide to President Ahmadinejad, quoted by Iranian Labour News Agency, 19 April 2010.

²² The period of notice provided by Iran regarding the related changes made to PFEP was insufficient for the Agency to adjust the existing safeguards procedures before Iran started to feed the material into PFEP (GOV/2010/10, para. 48).

²³ A summary of the issues was provided to the Board in Section E of GOV/2008/15, and most recently in GOV/2010/10, para. 40.

a number of technical matters it needed to address with Iran.²⁴ Since August 2008, however, Iran has declined to discuss the outstanding issues with the Agency or to provide any further information or access to locations and people necessary to address the Agency's concerns, asserting that the allegations relating to possible military dimensions to its nuclear programme are baseless and that the information to which the Agency is referring is based on forged documents.

35. Based on an overall analysis undertaken by the Agency of all the information available to it,²⁵ the Agency remains concerned about the possible existence in Iran of past or current undisclosed nuclear related activities, involving military related organizations, including activities related to the development of a nuclear payload for a missile. There are indications that certain of these activities may have continued beyond 2004.

36. With the passage of time and the possible deterioration in the availability of information, it is essential that Iran engage with the Agency on these issues, and that the Agency be permitted to visit all relevant sites, have access to all relevant equipment and documentation, and be allowed to interview all relevant persons, without further delay. Iran's substantive and proactive engagement is essential to enable the Agency to make progress in its verification of the correctness and completeness of Iran's declarations.

H. Summary

37. While the Agency continues to verify the non-diversion of declared nuclear material in Iran, Iran has not provided the necessary cooperation to permit the Agency

²⁴ GOV/2010/10, paras 42–43.

²⁵ GOV/2010/10, para. 41.

to confirm that all nuclear material in Iran is in peaceful activities.²⁶

38. More specifically, Iran is not implementing the requirements contained in the relevant resolutions of the Board of Governors and the Security Council, including implementation of the Additional Protocol, which are essential to building confidence in the exclusively peaceful purpose of Iran's nuclear programme and to resolving outstanding questions. In particular, Iran needs to cooperate in clarifying outstanding issues which give rise to concerns about possible military dimensions to its nuclear programme. Iran also needs to implement the modified Code 3.1 on the early provision of design information.
39. In addition, contrary to the relevant resolutions of the Board of Governors and the Security Council, Iran has not suspended enrichment related activities. Iran has continued with the operation of FEP and PFEP at Natanz, and the construction of a new enrichment plant at Fordow. Iran's enrichment of uranium up to 20% U-235 at PFEP, and its subsequent plan to use two cascades that will be interconnected, necessitated a new safeguards approach, which is now being implemented. In order to verify the chronology and original

²⁶ The Board has confirmed on numerous occasions, since as early as 1992, that paragraph 2 of INFCIRC/153 (Corr.), which corresponds to Article 2 of Iran's Safeguards Agreement, authorizes and requires the Agency to seek to verify both the nondiversion of nuclear material from declared activities (i.e. correctness) and the absence of undeclared nuclear activities in the State (i.e. completeness) (see, for example, GOV/OR.864, para. 49). Paragraph 37 above reflects the past and current implementation by Iran of its Safeguards Agreement and other obligations.

purpose of FFEP, Iran still needs to provide the Agency with access to relevant design documents and to companies involved in the design of the plant. Iran also needs to submit a complete DIQ for the facility. Iran has also announced that it has selected the venues for new nuclear sites and that construction of these sites is underway, but has not provided the Agency with the necessary relevant information and access in accordance with Iran's Safeguards Agreement.

40. Similarly, contrary to the relevant resolutions of the Board of Governors and the Security Council, Iran has also continued with the construction of the IR-40 reactor and with heavy water related activities. The Agency has not been permitted to take samples of the heavy water which is stored at UCF, and has not been provided with access to the Heavy Water Production Plant.
41. The Director General requests Iran to take steps towards the full implementation of its Safeguards Agreement and its other obligations, including implementation of its Additional Protocol.
42. The Director General will continue to report as appropriate

Source: Implementation of the NPT Safeguards Agreement and Relevant Provisions of Security Council Resolutions 1737 (2006), 1747 (2007), 1803 (2008), and 1835 (2008) in the Islamic Republic of Iran// Site of the Institute for Science and International Security// http://www.isis-online.org/uploads/isis-reports/documents/IAEA_Report_Iran_31May2010.pdf.

2.4. United Nations Security Council Resolution 1929 (Iran), June 9, 2010; New-York

The Security Council,

Recalling the Statement of its President, S/PRST/2006/15, and its resolutions 1696 (2006), 1737 (2006), 1747 (2007), 1803 (2008), 1835 (2008), and 1887 (2009) and reaffirming their provisions,

Reaffirming its commitment to the Treaty on the Non-Proliferation of Nuclear Weapons, the need for all States Party to that Treaty to comply fully with all their obligations, and *recalling* the right of States Party, in conformity with Articles I and II of that Treaty, to develop research, production and use of nuclear energy for peaceful purposes without discrimination,

Recalling the resolution of the IAEA Board of Governors (GOV/2006/14), which states that a solution to the Iranian nuclear issue would contribute to global non-proliferation efforts and to realizing the objective of a Middle East free of weapons of mass destruction, including their means of delivery,

Noting with serious concern that, as confirmed by the reports of 27 February 2006 (GOV/2006/15), 8 June 2006 (GOV/2006/38), 31 August 2006 (GOV/2006/53), 14 November 2006 (GOV/2006/64), 22 February 2007 (GOV/2007/8), 23 May 2007 (GOV/2007/22), 30 August 2007 (GOV/2007/48), 15 No-

vember 2007 (GOV/2007/58), 22 February 2008 (GOV/2008/4), 26 May 2008 (GOV/2008/15), 15 September 2008 (GOV/2008/38), 19 November 2008 (GOV/2008/59), 19 February 2009 (GOV/2009/8), 5 June 2009 (GOV/2009/35), 28 August 2009 (GOV/2009/55), 16 November 2009 (GOV/2009/74), 18 February 2010 (GOV/2010/10) and 31 May 2010 (GOV/2010/28) of the Director General of the International Atomic Energy Agency (IAEA), Iran has not established full and sustained suspension of all enrichment-related and reprocessing activities and heavy water-related projects as set out in resolutions 1696 (2006), 1737 (2006), 1747 (2007) and 1803 (2008) nor resumed its cooperation with the IAEA under the Additional Protocol, nor cooperated with the IAEA in connection with the remaining issues of concern, which need to be clarified to exclude the possibility of military dimensions of Iran's nuclear programme, nor taken the other steps required by the IAEA Board of Governors, nor complied with the provisions of Security Council resolutions 1696 (2006), 1737 (2006), 1747 (2007) and 1803 (2008) and which are essential to build confidence, and deploring Iran's refusal to take these steps,

Reaffirming that outstanding issues can be best resolved and confidence built in the ex-

clusively peaceful nature of Iran's nuclear programme by Iran responding positively to all the calls which the Council and the IAEA Board of Governors have made on Iran,

Noting with serious concern the role of elements of the Islamic Revolutionary Guard Corps (IRGC, also known as "Army of the Guardians of the Islamic Revolution"), including those specified in Annex D and E of resolution 1737 (2006), Annex I of resolution 1747 (2007) and Annex II of this resolution, in Iran's proliferation-sensitive nuclear activities and the development of nuclear weapon delivery systems,

Noting with serious concern that Iran has constructed an enrichment facility at Qom in breach of its obligations to suspend all enrichment-related activities, and that Iran failed to notify it to the IAEA until September 2009, which is inconsistent with its obligations under the Subsidiary Arrangements to its Safeguards Agreement,

Also noting the resolution of the IAEA Board of Governors (GOV/2009/82), which urges Iran to suspend immediately construction at Qom, and to clarify the facility's purpose, chronology of design and construction, and calls upon Iran to confirm, as requested by the IAEA, that it has not taken a decision to construct, or authorize construction of, any other nuclear facility which has as yet not been declared to the IAEA,

Noting with serious concern that Iran has enriched uranium to 20 per cent, and did so without notifying the IAEA with sufficient time for it to adjust the existing safeguards procedures,

Noting with concern that Iran has taken issue with the IAEA's right to verify design information which had been provided by Iran pursuant to the modified Code 3.1, and emphasizing that in accordance with Article 39 of Iran's Safeguards Agreement Code 3.1 cannot be modified nor suspended unilater-

ally and that the IAEA's right to verify design information provided to it is a continuing right, which is not dependent on the stage of construction of, or the presence of nuclear material at, a facility,

Reiterating its determination to reinforce the authority of the IAEA, strongly supporting the role of the IAEA Board of Governors, and commending the IAEA for its efforts to resolve outstanding issues relating to Iran's nuclear programme,

Expressing the conviction that the suspension set out in paragraph 2 of resolution 1737 (2006) as well as full, verified Iranian compliance with the requirements set out by the IAEA Board of Governors would contribute to a diplomatic, negotiated solution that guarantees Iran's nuclear programme is for exclusively peaceful purposes,

Emphasizing the importance of political and diplomatic efforts to find a negotiated solution guaranteeing that Iran's nuclear programme is exclusively for peaceful purposes and noting in this regard the efforts of Turkey and Brazil towards an agreement with Iran on the Tehran Research Reactor that could serve as a confidence-building measure,

Emphasizing also, however, in the context of these efforts, the importance of Iran addressing the core issues related to its nuclear programme,

Stressing that China, France, Germany, the Russian Federation, the United Kingdom and the United States are willing to take further concrete measures on exploring an overall strategy of resolving the Iranian nuclear issue through negotiation on the basis of their June 2006 proposals (S/2006/521) and their June 2008 proposals (INFCIRC/730), and noting the confirmation by these countries that once the confidence of the international community in the exclusively peaceful nature of Iran's nuclear programme is restored it will be treated in the same manner as that of any Non-Nu-

clear Weapon State Party to the Treaty on the Non-Proliferation of Nuclear Weapons,

Welcoming the guidance issued by the Financial Action Task Force (FATF) to assist States in implementing their financial obligations under resolutions 1737 (2006) and 1803 (2008), and recalling in particular the need to exercise vigilance over transactions involving Iranian banks, including the Central Bank of Iran, so as to prevent such transactions contributing to proliferation-sensitive nuclear activities, or to the development of nuclear weapon delivery systems,

Recognizing that access to diverse, reliable energy is critical for sustainable growth and development, while noting the potential connection between Iran's revenues derived from its energy sector and the funding of Iran's proliferation-sensitive nuclear activities, and further noting that chemical process equipment and materials required for the petrochemical industry have much in common with those required for certain sensitive nuclear fuel cycle activities,

Having regard to States' rights and obligations relating to international trade,

Recalling that the law of the sea, as reflected in the United Nations Convention on the Law of the Sea (1982), sets out the legal framework applicable to ocean activities,

Calling for the ratification of the Comprehensive Nuclear-Test-Ban Treaty by Iran at an early date,

Determined to give effect to its decisions by adopting appropriate measures to persuade Iran to comply with resolutions 1696 (2006), 1737 (2006), 1747 (2007) and 1803 (2008) and with the requirements of the IAEA, and also to constrain Iran's development of sensitive technologies in support of its nuclear and missile programmes, until such time as the Security Council determines that the objectives of these resolutions have been met,

Concerned by the proliferation risks presented by the Iranian nuclear programme and mindful of its primary responsibility under the Charter of the United Nations for the maintenance of international peace and security,

Stressing that nothing in this resolution compels States to take measures or actions exceeding the scope of this resolution, including the use of force or the threat of force,

Acting under Article 41 of Chapter VII of the Charter of the United Nations,

1. *Affirms* that Iran has so far failed to meet the requirements of the IAEA Board of Governors and to comply with resolutions 1696 (2006), 1737 (2006), 1747 (2007) and 1803 (2008);
2. *Affirms* that Iran shall without further delay take the steps required by the IAEA Board of Governors in its resolutions GOV/2006/14 and GOV/2009/82, which are essential to build confidence in the exclusively peaceful purpose of its nuclear programme, to resolve outstanding questions and to address the serious concerns raised by the construction of an enrichment facility at Qom in breach of its obligations to suspend all enrichment-related activities, and, in this context, further affirms its decision that Iran shall without delay take the steps required in paragraph 2 of resolution 1737 (2006);
3. *Reaffirms* that Iran shall cooperate fully with the IAEA on all outstanding issues, particularly those which give rise to concerns about the possible military dimensions of the Iranian nuclear programme, including by providing access without delay to all sites, equipment, persons and documents requested by the IAEA, and *stresses* the importance of ensuring that the IAEA have all necessary resources and authority for the fulfillment of its work in Iran;

4. *Requests* the Director General of the IAEA to communicate to the Security Council all his reports on the application of safeguards in Iran;

5. *Decides* that Iran shall without delay comply fully and without qualification with its IAEA Safeguards Agreement, including through the application of modified Code 3.1 of the Subsidiary Arrangement to its Safeguards Agreement, calls upon Iran to act strictly in accordance with the provisions of the Additional Protocol to its IAEA Safeguards Agreement that it signed on 18 December 2003, *calls upon* Iran to ratify promptly the Additional Protocol, and reaffirms that, in accordance with Articles 24 and 39 of Iran's Safeguards Agreement, Iran's Safeguards Agreement and its Subsidiary Arrangement, including modified Code 3.1, cannot be amended or changed unilaterally by Iran, and notes that there is no mechanism in the Agreement for the suspension of any of the provisions in the Subsidiary Arrangement;

6. *Reaffirms* that, in accordance with Iran's obligations under previous resolutions to suspend all reprocessing, heavy water-related and enrichment-related activities, Iran shall not begin construction on any new uranium-enrichment, reprocessing, or heavy water-related facility and shall discontinue any ongoing construction of any uranium-enrichment, reprocessing, or heavy water-related facility;

7. *Decides* that Iran shall not acquire an interest in any commercial activity in another State involving uranium mining, production or use of nuclear materials and technology as listed in INFCIRC/254/Rev.9/Part 1, in particular uranium enrichment and reprocessing activities, all heavy-water activities or technology related to ballistic missiles capable of delivering nuclear weapons, and *further*

decides that all States shall prohibit such investment in territories under their jurisdiction by Iran, its nationals, and entities incorporated in Iran or subject to its jurisdiction, or by persons or entities acting on their behalf or at their direction, or by entities owned or controlled by them;

8. *Decides* that all States shall prevent the direct or indirect supply, sale or transfer to Iran, from or through their territories or by their nationals or individuals subject to their jurisdiction, or using their flag vessels or aircraft, and whether or not originating in their territories, of any battle tanks, armoured combat vehicles, large calibre artillery systems, combat aircraft, attack helicopters, warships, missiles or missile systems as defined for the purpose of the United Nations Register of Conventional Arms, or related materiel, including spare parts, or items as determined by the Security Council or the Committee established pursuant to resolution 1737 (2006) ("the Committee"), *decides* further that all States shall prevent the provision to Iran by their nationals or from or through their territories of technical training, financial resources or services, advice, other services or assistance related to the supply, sale, transfer, provision, manufacture, maintenance or use of such arms and related materiel, and, in this context, *calls upon* all States to exercise vigilance and restraint over the supply, sale, transfer, provision, manufacture and use of all other arms and related materiel;

9. *Decides* that Iran shall not undertake any activity related to ballistic missiles capable of delivering nuclear weapons, including launches using ballistic missile technology, and that States shall take all necessary measures to prevent the transfer of technology or technical assistance to Iran related to such activities;

10. *Decides* that all States shall take the necessary measures to prevent the entry into or transit through their territories of individuals designated in Annex C, D and E of resolution 1737 (2006), Annex I of resolution 1747 (2007), Annex I of resolution 1803 (2008) and Annexes I and II of this resolution, or by the Security Council or the Committee pursuant to paragraph 10 of resolution 1737 (2006), except where such entry or transit is for activities directly related to the provision to Iran of items in subparagraphs 3(b)(i) and (ii) of resolution 1737 (2006) in accordance with paragraph 3 of resolution 1737 (2006), *underlines* that nothing in this paragraph shall oblige a State to refuse its own nationals entry into its territory, and *decides* that the measures imposed in this paragraph shall not apply when the Committee determines on a case-by-case basis that such travel is justified on the grounds of humanitarian need, including religious obligations, or where the Committee concludes that an exemption would otherwise further the objectives of this resolution, including where Article XV of the IAEA Statute is engaged;
11. *Decides* that the measures specified in paragraphs 12, 13, 14 and 15 of resolution 1737 (2006) shall apply also to the individuals and entities listed in Annex I of this resolution and to any individuals or entities acting on their behalf or at their direction, and to entities owned or controlled by them, including through illicit means, and to any individuals and entities determined by the Council or the Committee to have assisted designated individuals or entities in evading sanctions of, or in violating the provisions of, resolutions 1737 (2006), 1747 (2007), 1803 (2008) or this resolution;
12. *Decides* that the measures specified in paragraphs 12, 13, 14 and 15 of resolution 1737 (2006) shall apply also to the Islamic Revolutionary Guard Corps (IRGC, also known as "Army of the Guardians of the Islamic Revolution") individuals and entities specified in Annex II, and to any individuals or entities acting on their behalf or at their direction, and to entities owned or controlled by them, including through illicit means, and *calls upon* all States to exercise vigilance over those transactions involving the IRGC that could contribute to Iran's proliferation-sensitive nuclear activities or the development of nuclear weapon delivery systems;
13. *Decides* that for the purposes of the measures specified in paragraphs 3, 4, 5, 6 and 7 of resolution 1737 (2006), the list of items in S/2006/814 shall be superseded by the list of items in INFCIRC/254/Rev.9/Part 1 and INFCIRC/254/Rev.7/Part 2, and any further items if the State determines that they could contribute to enrichment-related, reprocessing or heavy water-related activities or to the development of nuclear weapon delivery systems, and further *decides* that for the purposes of the measures specified in paragraphs 3, 4, 5, 6 and 7 of resolution 1737 (2006), the list of items contained in S/2006/815 shall be superseded by the list of items contained in S/2010/263;
14. *Calls upon* all States to inspect, in accordance with their national authorities and legislation and consistent with international law, in particular the law of the sea and relevant international civil aviation agreements, all cargo to and from Iran, in their territory, including seaports and airports, if the State concerned has information that provides reasonable grounds to believe the cargo contains items the supply, sale, transfer, or export of which is prohibited by paragraphs 3, 4 or 7 of resolution 1737 (2006), paragraph 5 of resolution 1747 (2007), paragraph 8 of resolution 1803 (2008) or paragraphs 8 or 9 of this resolution, for the purpose of ensuring strict implementation of those provisions;
15. *Notes* that States, consistent with international law, in particular the law of the sea, may request inspections of vessels on the high seas with the consent of the flag State, and *calls upon* all States to cooperate in such inspections if there is information that provides reasonable grounds to believe the vessel is carrying items the supply, sale, transfer, or export of which is prohibited by paragraphs 3, 4 or 7 of resolution 1737 (2006), paragraph 5 of resolution 1747 (2007), paragraph 8 of resolution 1803 (2008) or paragraphs 8 or 9 of this resolution, for the purpose of ensuring strict implementation of those provisions;
16. *Decides* to authorize all States to, and that all States shall, seize and dispose of (such as through destruction, rendering inoperable, storage or transferring to a State other than the originating or destination States for disposal) items the supply, sale, transfer, or export of which is prohibited by paragraphs 3, 4 or 7 of resolution 1737 (2006), paragraph 5 of resolution 1747 (2007), paragraph 8 of resolution 1803 (2008) or paragraphs 8 or 9 of this resolution that are identified in inspections pursuant to paragraphs 14 or 15 of this resolution, in a manner that is not inconsistent with their obligations under applicable Security Council resolutions, including resolution 1540 (2004), as well as any obligations of parties to the NPT, and *decides* further that all States shall cooperate in such efforts;
17. *Requires* any State, when it undertakes an inspection pursuant to paragraphs 14 or 15 above to submit to the Committee within five working days an initial written report containing, in particular, explanation of the grounds for the inspections, the results of such inspections and whether or not cooperation was provided, and, if items prohibited for transfer are found, *further requires* such States to submit to the Committee, at a later stage, a subsequent written report containing relevant details on the inspection, seizure and disposal, and relevant details of the transfer, including a description of the items, their origin and intended destination, if this information is not in the initial report;
18. *Decides* that all States shall prohibit the provision by their nationals or from their territory of bunkering services, such as provision of fuel or supplies, or other servicing of vessels, to Iranian-owned or -contracted vessels, including chartered vessels, if they have information that provides reasonable grounds to believe they are carrying items the supply, sale, transfer, or export of which is prohibited by paragraphs 3, 4 or 7 of resolution 1737 (2006), paragraph 5 of resolution 1747 (2007), paragraph 8 of resolution 1803 (2008) or paragraphs 8 or 9 of this resolution, unless provision of such services is necessary for humanitarian purposes or until such time as the cargo has been inspected, and seized and disposed of if necessary, and *underlines* that this paragraph is not intended to affect legal economic activities;
19. *Decides* that the measures specified in paragraphs 12, 13, 14 and 15 of resolution 1737 (2006) shall also apply to the entities of the Islamic Republic of Iran Shipping Lines (IRISL) as specified in Annex III and to any person or entity acting on their behalf or at their direction, and to entities owned or controlled by them, including through illicit means, or determined by the Council or the Committee to have assisted them in evading the sanctions of, or in violating the provisions of, resolutions

- 1737 (2006), 1747 (2007), 1803 (2008) or this resolution;
20. *Requests* all Member States to communicate to the Committee any information available on transfers or activity by Iran Air's cargo division or vessels owned or operated by the Islamic Republic of Iran Shipping Lines (IRISL) to other companies that may have been undertaken in order to evade the sanctions of, or in violation of the provisions of, resolutions 1737 (2006), 1747 (2007), 1803 (2008) or this resolution, including renaming or re-registering of aircraft, vessels or ships, and requests the Committee to make that information widely available;
21. *Calls* upon all States, in addition to implementing their obligations pursuant to resolutions 1737 (2006), 1747 (2007), 1803 (2008) and this resolution, to prevent the provision of financial services, including insurance or re-insurance, or the transfer to, through, or from their territory, or to or by their nationals or entities organized under their laws (including branches abroad), or persons or financial institutions in their territory, of any financial or other assets or resources if they have information that provides reasonable grounds to believe that such services, assets or resources could contribute to Iran's proliferation-sensitive nuclear activities, or the development of nuclear weapon delivery systems, including by freezing any financial or other assets or resources on their territories or that hereafter come within their territories, or that are subject to their jurisdiction or that hereafter become subject to their jurisdiction, that are related to such programmes or activities and applying enhanced monitoring to prevent all such transactions in accordance with their national authorities and legislation;
22. *Decides* that all States shall require their nationals, persons subject to their jurisdiction and firms incorporated in their territory or subject to their jurisdiction to exercise vigilance when doing business with entities incorporated in Iran or subject to Iran's jurisdiction, including those of the IRGC and IRISL, and any individuals or entities acting on their behalf or at their direction, and entities owned or controlled by them, including through illicit means, if they have information that provides reasonable grounds to believe that such business could contribute to Iran's proliferation-sensitive nuclear activities or the development of nuclear weapon delivery systems or to violations of resolutions 1737 (2006), 1747 (2007), 1803 (2008) or this resolution;
23. *Calls upon* States to take appropriate measures that prohibit in their territories the opening of new branches, subsidiaries, or representative offices of Iranian banks, and also that prohibit Iranian banks from establishing new joint ventures, taking an ownership interest in or establishing or maintaining correspondent relationships with banks in their jurisdiction to prevent the provision of financial services if they have information that provides reasonable grounds to believe that these activities could contribute to Iran's proliferation-sensitive nuclear activities or the development of nuclear weapon delivery systems;
24. *Calls upon* States to take appropriate measures that prohibit financial institutions within their territories or under their jurisdiction from opening representative offices or subsidiaries or banking accounts in Iran if they have information that provides reasonable grounds to believe that such financial services could contribute to Iran's proliferation-sensitive nuclear activities or the development of nuclear weapon delivery systems;
25. *Deplores* the violations of the prohibitions of paragraph 5 of resolution 1747 (2007) that have been reported to the Committee since the adoption of resolution 1747 (2007), and *commends* States that have taken action to respond to these violations and report them to the Committee;
26. *Directs* the Committee to respond effectively to violations of the measures decided in resolutions 1737 (2006), 1747 (2007), 1803 (2008) and this resolution, and *recalls* that the Committee may designate individuals and entities who have assisted designated persons or entities in evading sanctions of, or in violating the provisions of, these resolutions;
27. *Decides* that the Committee shall intensify its efforts to promote the full implementation of resolutions 1737 (2006), 1747 (2007), 1803 (2008) and this resolution, including through a work programme covering compliance, investigations, outreach, dialogue, assistance and cooperation, to be submitted to the Council within forty-five days of the adoption of this resolution;
28. *Decides* that the mandate of the Committee as set out in paragraph 18 of resolution 1737 (2006), as amended by paragraph 14 of resolution 1803 (2008), shall also apply to the measures decided in this resolution, including to receive reports from States submitted pursuant to paragraph 17 above;
29. *Requests* the Secretary-General to create for an initial period of one year, in consultation with the Committee, a group of up to eight experts ("Panel of Experts"), under the direction of the Committee, to carry out the following tasks: (a) assist the Committee in carrying out its mandate as specified in paragraph 18 of resolution 1737 (2006) and paragraph 28 of this resolution; (b) gather, examine and analyse information from States, relevant United Nations bodies and other interested parties regarding the implementation of the measures decided in resolutions 1737 (2006), 1747 (2007), 1803 (2008) and this resolution, in particular incidents of non-compliance; (c) make recommendations on actions the Council, or the Committee or State, may consider to improve implementation of the relevant measures; and (d) provide to the Council an interim report on its work no later than 90 days after the Panel's appointment, and a final report to the Council no later than 30 days prior to the termination of its mandate with its findings and recommendations;
30. *Urges* all States, relevant United Nations bodies and other interested parties, to cooperate fully with the Committee and the Panel of Experts, in particular by supplying any information at their disposal on the implementation of the measures decided in resolutions 1737 (2006), 1747 (2007), 1803 (2008) and this resolution, in particular incidents of non-compliance;
31. *Calls upon* all States to report to the Committee within 60 days of the adoption of this resolution on the steps they have taken with a view to implementing effectively paragraphs 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 21, 22, 23 and 24;
32. *Stresses* the willingness of China, France, Germany, the Russian Federation, the United Kingdom and the United States to further enhance diplomatic efforts to promote dialogue and consultations, including to resume dialogue with Iran on the nuclear issue without preconditions, most recently in their meeting with Iran in Geneva on 1 October 2009, with a view to seeking a comprehensive, longterm and proper solution of this issue on the basis of the proposal made by China, France, Germany, the Russian Federation, the United Kingdom and the United

States on 14 June 2008, which would allow for the development of relations and wider cooperation with Iran based on mutual respect and the establishment of international confidence in the exclusively peaceful nature of Iran's nuclear programme and, inter alia, starting formal negotiations with Iran on the basis of the June 2008 proposal, and *acknowledges with appreciation* that the June 2008 proposal, as attached in Annex IV to this resolution, remains on the table;

33. *Encourages* the High Representative of the European Union for Foreign Affairs and Security Policy to continue communication with Iran in support of political and diplomatic efforts to find a negotiated solution, including relevant proposals by China, France, Germany, the Russian Federation, the United Kingdom and the United States with a view to create necessary conditions for resuming talks, and *encourages* Iran to respond positively to such proposals;
34. *Commends* the Director General of the IAEA for his 21 October 2009 proposal of a draft Agreement between the IAEA and the Governments of the Republic of France, the Islamic Republic of Iran and the Russian Federation for Assistance in Securing Nuclear Fuel for a Research Reactor in Iran for the Supply of Nuclear Fuel to the Tehran Research Reactor, *regrets* that Iran has not responded constructively to the 21 October 2009 proposal, and *encourages* the IAEA to continue exploring such measures to build confidence consistent with and in furtherance of the Council's resolutions;
35. *Emphasizes* the importance of all States, including Iran, taking the necessary measures to ensure that no claim shall lie at the instance of the Government of Iran, or of any person or entity in Iran, or of persons or entities designated pursuant

to resolution 1737 (2006) and related resolutions, or any person claiming through or for the benefit of any such person or entity, in connection with any contract or other transaction where its performance was prevented by reason of the measures imposed by resolutions 1737 (2006), 1747 (2007), 1803 (2008) and this resolution;

36. *Requests* within 90 days a report from the Director General of the IAEA on whether Iran has established full and sustained suspension of all activities mentioned in resolution 1737 (2006), as well as on the process of Iranian compliance with all the steps required by the IAEA Board of Governors and with other provisions of resolutions 1737 (2006), 1747 (2007), 1803 (2008) and of this resolution, to the IAEA Board of Governors and in parallel to the Security Council for its consideration;
37. *Affirms* that it shall review Iran's actions in light of the report referred to in paragraph 36 above, to be submitted within 90 days, and: (a) that it shall suspend the implementation of measures if and for so long as Iran suspends all enrichment-related and reprocessing activities, including research and development, as verified by the IAEA, to allow for negotiations in good faith in order to reach an early and mutually acceptable outcome; (b) that it shall terminate the measures specified in paragraphs 3, 4, 5, 6, 7 and 12 of resolution 1737 (2006), as well as in paragraphs 2, 4, 5, 6 and 7 of resolution 1747 (2007), paragraphs 3, 5, 7, 8, 9, 10 and 11 of resolution 1803 (2008), and in paragraphs 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 21, 22, 23 and 24 above, as soon as it determines, following receipt of the report referred to in the paragraph above, that Iran has fully complied with its obligations under the relevant resolutions of the Security Council and met the requirements of the IAEA Board of Governors, as confirmed

by the IAEA Board of Governors; (c) that it shall, in the event that the report shows that Iran has not complied with resolutions 1737 (2006), 1747 (2007), 1803 (2008) and this resolution, adopt further appropriate measures under Article 41 of Chapter VII of the Charter of the United Nations to persuade Iran to comply with these resolutions and the requirements of the IAEA, and *underlines* that further decisions will be required should such additional measures be necessary;

38. *Decides* to remain seized of the matter.

ANNEX I

Individuals and entities involved in nuclear or ballistic missile activities

Entities

1. **Amin Industrial Complex:** Amin Industrial Complex sought temperature controllers which may be used in nuclear research and operational/production facilities. Amin Industrial Complex is owned or controlled by, or acts on behalf of, the Defense Industries Organization (DIO), which was designated in resolution 1737 (2006).
Location: P.O. Box 91735-549, Mashad, Iran; Amin Industrial Estate, Khalage Rd., Seyedi District, Mashad, Iran; Kaveh Complex, Khalaj Rd., Seyedi St., Mashad, Iran.
A.K.A.: Amin Industrial Compound and Amin Industrial Company
2. **Armament Industries Group:** Armament Industries Group (AIG) manufactures and services a variety of small arms and light weapons, including large- and medium-calibre guns and related technology. AIG conducts the majority of its procurement activity through Hadid Industries Complex.
Location: Sepah Islam Road, Karaj Special Road Km 10, Iran; Pasdaran Ave., P.O. Box 19585/777, Tehran, Iran

3. **Defense Technology and Science Research Center:** Defense Technology and Science Research Center (DTSRC) is owned or controlled by, or acts on behalf of, Iran's Ministry of Defense and Armed Forces Logistics (MODAFL), which oversees Iran's defence R&D, production, maintenance, exports, and procurement.
Location: Pasdaran Ave, PO Box 19585/777, Tehran, Iran

4. **Doostan International Company:** Doostan International Company (DICO) supplies elements to Iran's ballistic missile program.

5. **Farasakht Industries:** Farasakht Industries is owned or controlled by, or act on behalf of, the Iran Aircraft Manufacturing Company, which in turn is owned or controlled by MODAFL.
Location: P.O. Box 83145-311, Kilometer 28, Esfahan-Tehran Freeway, Shahin Shahr, Esfahan, Iran

6. **First East Export Bank, P.L.C.:** First East Export Bank, PLC is owned or controlled by, or acts on behalf of, Bank Mellat. Over the last seven years, Bank Mellat has facilitated hundreds of millions of dollars in transactions for Iranian nuclear, missile, and defense entities.

Location: Unit Level 10 (B1), Main Office Tower, Financial Park Labuan, Jalan Merdeka, 87000 WP Labuan, Malaysia; Business Registration Number LL06889 (Malaysia)

7. **Kaveh Cutting Tools Company:** Kaveh Cutting Tools Company is owned or controlled by, or acts on behalf of, the DIO.
Location: 3rd Km of Khalaj Road, Seyyedi Street, Mashad 91638, Iran; Km 4 of Khalaj Road, End of Seyedi Street, Mashad, Iran; P.O. Box 91735-549, Mashad, Iran; Khalaj Rd., End of Seyyedi Alley, Mashad, Iran; Moqan St., Pasdaran St., Pasdaran Cross Rd., Tehran, Iran

8. **M. Babaie Industries:** M. Babaie Industries is subordinate to Shahid Ahmad Kazemi Industries Group (formally the Air Defense Missile Industries Group) of Iran's Aerospace Industries Organization (AIO). AIO controls the missile organizations Shahid Hemmat Industrial Group (SHIG) and the Shahid Bakeri Industrial Group (SBIG), both of which were designated in resolution 1737 (2006).
Location: P.O. Box 16535-76, Tehran, 16548, Iran
9. **Malek Ashtar University:** A subordinate of the DTRSC within MODAFL. This includes research groups previously falling under the Physics Research Center (PHRC). IAEA inspectors have not been allowed to interview staff or see documents under the control of this organization to resolve the outstanding issue of the possible military dimension to Iran's nuclear program.
Location: Corner of Imam Ali Highway and Babaei Highway, Tehran, Iran
10. **Ministry of Defense Logistics Export:** Ministry of Defense Logistics Export (MODLEX) sells Iranian-produced arms to customers around the world in contravention of resolution 1747 (2007), which prohibits Iran from selling arms or related materiel.
Location: PO Box 16315-189, Tehran, Iran; located on the west side of Dabestan Street, Abbas Abad District, Tehran, Iran
11. **Mizan Machinery Manufacturing:** Mizan Machinery Manufacturing (3M) is owned or controlled by, or acts on behalf of, SHIG.
Location: P.O. Box 16595-365, Tehran, Iran
A.K.A.: 3MG
12. **Modern Industries Technique Company:** Modern Industries Technique Company (MITEC) is responsible for design and construction of the IR-40 heavy water reactor in Arak. MITEC has spearheaded procurement for the construction of the IR-40 heavy water reactor.
Location: Arak, Iran
A.K.A.: Rahkar Company, Rahkar Industries, Rahkar Sanaye Company, Rahkar Sanaye Novin
13. **Nuclear Research Center for Agriculture and Medicine:** The Nuclear Research Center for Agriculture and Medicine (NFRPC) is a large research component of the Atomic Energy Organization of Iran (AEOI), which was designated in resolution 1737 (2006). The NFRPC is AEOI's center for the development of nuclear fuel and is involved in enrichment-related activities.
Location: P.O. Box 31585-4395, Karaj, Iran
A.K.A.: Center for Agricultural Research and Nuclear Medicine; Karaji Agricultural and Medical Research Center
14. **Pejman Industrial Services Corporation:** Pejman Industrial Services Corporation is owned or controlled by, or acts on behalf of, SBIG.
Location: P.O. Box 16785-195, Tehran, Iran
15. **Sabalan Company:** Sabalan is a cover name for SHIG.
Location: Damavand Tehran Highway, Tehran, Iran
16. **Sahand Aluminum Parts Industrial Company (SAPICO):** SAPICO is a cover name for SHIG.
Location: Damavand Tehran Highway, Tehran, Iran
17. **Shahid Karrazi Industries:** Shahid Karrazi Industries is owned or controlled by, or acts on behalf of, SBIG.
Location: Tehran, Iran
18. **Shahid Satarri Industries:** Shahid Sattari Industries is owned or controlled by, or acts on behalf of, SBIG.
Location: Southeast Tehran, Iran
A.K.A.: Shahid Sattari Group Equipment Industries
19. **Shahid Sayyade Shirazi Industries:** Shahid Sayyade Shirazi Industries (SSSI) is

owned or controlled by, or acts on behalf of, the DIO.

Location: Next To Nirou Battery Mfg. Co, Shahid Babaii Expressway, Nobonyad Square, Tehran, Iran; Pasdaran St., P.O. Box 16765, Tehran 1835, Iran; Babaei Highway – Next to Niru M.F.G, Tehran, Iran

20. **Special Industries Group:** Special Industries Group (SIG) is a subordinate of DIO.

Location: Pasdaran Avenue, PO Box 19585/777, Tehran, Iran

21. **Tiz Pars:** Tiz Pars is a cover name for SHIG. Between April and July 2007, Tiz Pars attempted to procure a five axis laser welding and cutting machine, which could make a material contribution to Iran's missile program, on behalf of SHIG.

Location: Damavand Tehran Highway, Tehran, Iran

22. **Yazd Metallurgy Industries:** Yazd Metallurgy Industries (YMI) is a subordinate of DIO.

Location: Pasdaran Avenue, Next To Telecommunication Industry, Tehran 16588, Iran; Postal Box 89195/878, Yazd, Iran; P.O. Box 89195-678, Yazd, Iran; Km 5 of Taft Road, Yazd, Iran
A.K.A.: Yazd Ammunition Manufacturing and Metallurgy Industries, Directorate of Yazd Ammunition and Metallurgy Industries

Individuals

Javad Rahiqi: Head of the Atomic Energy Organization of Iran (AEOI) Esfahan Nuclear Technology Center (additional information: DOB: 24 April 1954; POB: Marshad).

ANNEX II

Entities owned, controlled, or acting on behalf of the Islamic Revolutionary Guard Corps

1. **Fater (or Faater) Institute:** Khatam al-Anbiya (KAA) subsidiary. Fater has worked

with foreign suppliers, likely on behalf of other KAA companies on IRGC projects in Iran.

2. **Gharagahe Sazandegi Ghaem:** Gharagahe Sazandegi Ghaem is owned or controlled by KAA.

3. **Ghorb Karbala:** Ghorb Karbala is owned or controlled by KAA.

4. **Ghorb Nooh:** Ghorb Nooh is owned or controlled by KAA.

5. **Hara Company:** Owned or controlled by Ghorb Nooh.

6. **Imensazan Consultant Engineers Institute:** Owned or controlled by, or acts on behalf of, KAA.

7. **Khatam al-Anbiya Construction Headquarters:** Khatam al-Anbiya Construction Headquarters (KAA) is an IRGC-owned company involved in large scale civil and military construction projects and other engineering activities. It undertakes a significant amount of work on Passive Defense Organization projects. In particular, KAA subsidiaries were heavily involved in the construction of the uranium enrichment site at Qom/Fordow.

8. **Makin:** Makin is owned or controlled by or acting on behalf of KAA, and is a subsidiary of KAA.

9. **Omran Sahel:** Owned or controlled by Ghorb Nooh.

10. **Oriental Oil Kish:** Oriental Oil Kish is owned or controlled by or acting on behalf of KAA.

11. **Rah Sahel:** Rah Sahel is owned or controlled by or acting on behalf of KAA.

12. **Rahab Engineering Institute:** Rahab is owned or controlled by or acting on behalf of KAA, and is a subsidiary of KAA.

13. **Sahel Consultant Engineers:** Owned or controlled by Ghorb Nooh.
14. **Sepanir:** Sepanir is owned or controlled by or acting on behalf of KAA.
15. **Sepasad Engineering Company:** Sepasad Engineering Company is owned or controlled by or acting on behalf of KAA.

ANNEX III

Entities owned, controlled, or acting on behalf of the Islamic Republic of Iran Shipping Lines (IRISL)

1. Irano Hind Shipping Company

Location: 18 Mehrshad Street, Sadaghat Street, Opposite of Park Mellat, Valie-Asr Ave., Tehran, Iran; 265, Next to Mehrshad, Sedaghat St., Opposite of Mellat Park, Vali Asr Ave., Tehran 1A001, Iran

2. IRISL Benelux NV

Location: Noorderlaan 139, B-2030, Antwerp, Belgium; V.A.T. Number BE480224531 (Belgium)

3. South Shipping Line Iran (SSL)

Location: Apt. No. 7, 3rd Floor, No. 2, 4th Alley, Gandi Ave., Tehran, Iran; Qaem Magham Farahani St., Tehran, Iran

ANNEX IV

Proposal to the Islamic Republic of Iran by China, France, Germany, the Russian Federation, the United Kingdom of Great Britain and Northern Ireland, the United States of America and the European Union

Presented to the Iranian authorities on 14 June 2008 Teheran

Possible Areas of Cooperation with Iran

In order to seek a comprehensive, long-term and proper solution of the Iranian nuclear issue consistent with relevant UN Security Council resolutions and building further

upon the proposal presented to Iran in June 2006, which remains on the table, the elements below are proposed as topics for negotiations between China, France, Germany, Iran, Russia, the United Kingdom, and the United States, joined by the High Representative of the European Union, as long as Iran verifiably suspends its enrichment-related and reprocessing activities, pursuant to OP 15 and OP 19(a) of UNSCR 1803. In the perspective of such negotiations, we also expect Iran to heed the requirements of the UNSC and the IAEA. For their part, China, France, Germany, Russia, the United Kingdom, the United States and the European Union High Representative state their readiness:

to recognize Iran's right to develop research, production and use of nuclear energy for peaceful purposes in conformity with its NPT obligations;

to treat Iran's nuclear programme in the same manner as that of any Non-nuclear Weapon State Party to the NPT once international confidence in the exclusively peaceful nature of Iran's nuclear programme is restored.

Nuclear Energy

- Reaffirmation of Iran's right to nuclear energy for exclusively peaceful purposes in conformity with its obligations under the NPT.
- Provision of technological and financial assistance necessary for Iran's peaceful use of nuclear energy, support for the resumption of technical cooperation projects in Iran by the IAEA.
- Support for construction of LWR based on state-of-the-art technology.
- Support for R&D in nuclear energy as international confidence is gradually restored.
- Provision of legally binding nuclear fuel supply guarantees.

- Cooperation with regard to management of spent fuel and radioactive waste.

Political

- Improving the six countries' and the EU's relations with Iran and building up mutual trust.
- Encouragement of direct contact and dialogue with Iran.
- Support Iran in playing an important and constructive role in international affairs.
- Promotion of dialogue and cooperation on non-proliferation, regional security and stabilization issues.
- Work with Iran and others in the region to encourage confidence-building measures and regional security.
- Establishment of appropriate consultation and cooperation mechanisms.
- Support for a conference on regional security issues.
- Reaffirmation that a solution to the Iranian nuclear issue would contribute to non-proliferation efforts and to realizing the objective of a Middle East free of weapons of mass destruction, including their means of delivery.
- Reaffirmation of the obligation under the UN Charter to refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any State or in any other manner inconsistent with the Charter of the United Nations.
- Cooperation on Afghanistan, including on intensified cooperation in the fight against drug trafficking, support for programmes on the return of Afghan refugees to Afghanistan; cooperation on reconstruction of Afghanistan; cooperation on guarding the Iran-Afghan border.

Economic

Steps towards the normalization of trade and economic relations, such as improving Iran's access to the international economy, markets and capital through practical support for full integration into international structures, including the World Trade Organization, and to create the framework for increased direct investment in Iran and trade with Iran.

Energy Partnership

Steps towards the normalization of cooperation with Iran in the area of energy: establishment of a long-term and wide-ranging strategic energy partnership between Iran and the European Union and other willing partners, with concrete and practical applications/measures.

Agriculture

- Support for agricultural development in Iran.

Facilitation of Iran's complete self-sufficiency in food through cooperation in modern technology.

Environment, Infrastructure

- Civilian Projects in the field of environmental protection, infrastructure, science and technology, and high-tech:
- Development of transport infrastructure, including international transport corridors.
- Support for modernization of Iran's telecommunication infrastructure, including by possible removal of relevant export restrictions.

Civil Aviation

- Civil aviation cooperation, including the possible removal of restrictions on manufacturers exporting aircraft to Iran:

- Enabling Iran to renew its civil aviation fleet;
- Assisting Iran to ensure that Iranian aircraft meet international safety standards.

Economic, social and human development/humanitarian issues

- Provide, as necessary, assistance to Iran's economic and social development and humanitarian need.
- Cooperation/technical support in education in areas of benefit to Iran.
- Supporting Iranians to take courses, placements or degrees in areas such as civil engineering, agriculture and environmental studies;
- Supporting partnerships between Higher Education Institutions e.g. public health,

rural livelihoods, joint scientific projects, public administration, history and philosophy.

- Cooperation in the field of development of effective emergency response capabilities (e.g. seismology, earthquake research, disaster control etc.).

- Cooperation within the framework of a "dialogue among civilizations".

Implementation mechanism

- Constitution of joint monitoring groups for the implementation of a future agreement.

Source: United Nations Security Council Resolution 1929/ United Nations' official site// <http://daccess-dds-ny.un.org/doc/UNDOC/GEN/N10/396/79/PDF/N1039679.pdf?OpenElement>.

2.5. Joint Statement by the Presidents of the United States of America and the Russian Federation on Strategic Stability, June 24, 2010; Washington

The United States of America and the Russian Federation are committed to continuing the development of a new strategic relationship based on mutual trust, openness, predictability, and cooperation by following up on the successful negotiation of the Treaty on Measures for the Further Reduction and Limitation of Strategic Offensive Arms, which is focused on the reduction of strategic offensive arms and provides a basis for consideration of further mutually beneficial measures.

They have submitted the Treaty on Measures for the Further Reduction and Limitation of Strategic Offensive Arms to the Senate of the United States and the State Duma of the Federal Assembly of the Russian Federation, and plan to coordinate closely on their respective efforts to secure its prompt ratification and entry into force.

In addition, the Arms Control and International Security Working Group of the U.S.-Russia Bilateral Presidential Commission plans to discuss potential ways to promote

strategic stability and a more transparent strategic relationship.

The United States of America and the Russian Federation intend to continue cooperation to establish a mechanism to exchange data on launches of ballistic missiles and space launch vehicles obtained from their national early warning systems. The ultimate goal of such cooperation would be the creation of an international system to monitor, and exchange data on, the launches of ballistic missiles and space launch vehicles. U.S. and Russian experts will meet soon to begin this process.

The United States of America and the Russian Federation are also committed to working with all our partners this year to strengthen the conventional arms control regime in Europe, and modernize it for the 21st century.

Source: Joint Statement by the Presidents of the United States of America and the Russian Federation on Strategic Stability/ Official information site "America.Gov"// <http://www.america.gov/st/texttrans-english/2010/June/20100624192451ihcuor0.1087719.html>.

APPENDIX 3

Acronyms

ABM	anti-ballistic missile	ICAO	International Civil Aviation Organization
BMD	ballistic missile defense	ICJ	International Court of Justice
BTWC/BWC	Biological and Toxin Weapons Convention (Biological Weapons Convention, BWC)	INF	intermediate-range nuclear forces
BWC	Biological Weapons Convention	INFCE	International Nuclear Fuel Cycle Estimation
CIA	Central Intelligence Agency (US)	LEU	low enriched uranium
CTBT	Comprehensive Nuclear-Test-Ban Treaty	LNG	liquefied natural gas
CTC	Counter-Terrorist Committee	MAD	mutual assured deterrence
CTR	Cooperative Threat Reduction, Nunn-Lugar Program	MGIMO	Moscow State Institute for International Relations (Russia)
CW	chemical weapon/warfare	MIT	Massachusetts Institute of Technology (US)
CWC	Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and their Destruction	MTCR	Missile Technology Control Regime
DoD	Department of Defense (US)	NATO	North Atlantic Treaty Organization
DoE	Department of Energy (US)	NGO	non-governmental organization
DPRK	Democratic People's Republic of Korea	NNWS	non-nuclear weapon state
FATF	Financial Action Task Force on Money Laundering	NORAD	North American Aerospace Defense Command
FMCT	Fissile Material Cut-Off Treaty	NPT	Treaty on the Non-Proliferation of Nuclear Weapons (Nuclear Non-Proliferation Treaty)
G8	Group of Eight	NSG	Nuclear Suppliers Group
GDP	gross domestic product	NTI	Nuclear Threat Initiative
GNEP	Global Nuclear Energy Partnership	OPCW	Organization for the Prohibition of Chemical Weapons
HEU	high enriched uranium	OSCE	Organization for Security and Cooperation in Europe
IAEA	International Atomic Energy Agency	P5	five permanent members of the UN Security Council
IMEMO	Institute for World Economy and International Relations (Russia)	PSI	Proliferation Security Initiative
IMO	International Maritime Organization	RAS	Russian Academy of Sciences
		R&D	research and development
		SDI	Strategic Defense Initiative
		START	Strategic Arms Reduction Treaty
		TNT	trinitrotoluol
		UAV	unmanned aerial vehicles
		UNMOVIC	United Nations Monitoring, Verification and Inspection Commission
		UNODC	United Nations Office on Drugs and Crime
		UNSCOM	UN Special Commission (Iraq)
		USEC	United States Enrichment Corporation
		WCO	World Customs Organization
		WHO	World Health Organization
		WMD	weapon of mass destruction
		WMDC	Weapons of Mass Destruction Commission

APPENDIX 4

List of Participants in the Workshop

- | | | | | | |
|----|---------------------------------|--|-----|--------------------------------|--|
| 1. | Alexei
ARBATOV | Head of the Center for International Security of the IMEMO (RAS); Scholar-in-Residence of the Carnegie Moscow Center (former Deputy Chairman of the Defense Committee of the State Duma, Federal Assembly – Russian Parliament); Corresponding member (RAS, Russia). | 6. | Rolf
EKEUS | Chairman of the Governing Board, Stockholm International Peace Research Institute (former High Commissioner on National Minorities at the OSCE); Ambassador (Sweden). |
| 2. | Sergey
BATSANOV | Member of Pugwash Council, Director of the Geneva Office of Pugwash Conferences on Science and World Affairs; Ambassador (Russia). | 7. | Vladimir
EVSEEV | Senior Associate of the IMEMO (RAS); Ph.D. (Russia). |
| 3. | Hans
BLIX | Ambassador (former Director General of the IAEA); Ph.D. (Sweden). | 8. | Sylwin
GIZOWSKI | Strategic Coordination and Planning Officer of the Office of the Executive Secretary, Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization (UN). |
| 4. | Paolo
Cotta-RAMUSINO | Secretary General of Pugwash Conferences on Science and World Affairs (Italy). | 9. | Francois
HEISBOURG | Chairman of the International Institute for Strategic Studies and of the Geneva Centre for Security Policy; Special Advisor to the President of the Foundation for Strategic Studies in Paris; Professor (France). |
| 5. | Vladimir
DVORKIN | Head of the Organizing Committee, International Luxembourg Forum; Principal Researcher of the IMEMO (RAS, former Director of the 4th Major Institute of the Ministry of Defense); Professor; Major-General, ret. (Russia). | 10. | Viatcheslav
KANTOR | President of the International Luxembourg Forum on Preventing Nuclear Catastrophe; President of the European Jewish Congress; Ph.D. (Russia). |
| | | | 11. | Anton
KHLOPKOV | Director of the Center for Energy and Security Studies (Russia). |
| | | | 12. | Sergey
OZNOBISHCHEV | Director of the Institute for Strategic Assessments; Professor of the Moscow State Institute for International Relations and the Higher School of Economics (former Chief of the Organizational Analytic Division, RAS); Ph.D. (Russia). |
| | | | 13. | George
PERKOVICH | Vice President for Studies and Director of the Non-Proliferation Program at the Carnegie Endowment for International Peace; Ph.D. (United States). |

14. **William POTTER** Director of the James Martin Center for Non-Proliferation Studies and Professor of Non-Proliferation Studies, Monterey Institute of International Studies; Ph.D. (United States).
15. **Tariq RAUF** Head, Verification and Security Policy Coordination, Office of External Relations and Policy Coordination of the IAEA; Ph.D. (IAEA).
16. **Vladimir SAZHIN** Senior Associate of the Department of the Middle East, Institute for Oriental Studies (RAS); Professor (Russia).
17. **Vitaly SHCHUKIN** Head of the Laboratory, Theoretical Division of the Russian Federal Nuclear Center – Institute of Technical Physics; Task Leader for On-Site Inspection, Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization; Ph.D. (Russia).
18. **Lisa TABASSI** Legal Officer of the Provisional Technical Secretariat, Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization (UN).
19. **Zoryana VOVCHOK** Intern at the IAEA's Office of Legal Affairs (IAEA).

УТВЕРЖДАЮ В ПЕЧАТЬ
Евсеев Владимир

