

*Paper presented to the Annual Meeting of the Institute of Nuclear Materials Management,
Baltimore, Maryland, 11-15 July 2010*

**STRENGTHENING THE NPT AND IAEA SAFEGUARDS:
RECOMMENDATIONS OF THE INTERNATIONAL COMMISSION ON NUCLEAR
NON-PROLIFERATION AND DISARMAMENT**

John Carlson
Australian Safeguards and Non-Proliferation Office
RG Casey Bldg, John McEwen Crescent, Barton, ACT 0221, Australia

ABSTRACT

The International Commission on Nuclear Non-Proliferation and Disarmament (ICNND), co-sponsored by the Australian and Japanese Governments, released its report, *Eliminating Nuclear Threats: A Practical Agenda for Global Policymakers*, on 15 December 2009. This was the first such report to address all three pillars of the NPT: non-proliferation, disarmament and peaceful uses.

The Commission's recommendations outline disarmament steps on a path to the abolition of nuclear weapons. The Commission recognises that an effective nuclear non-proliferation regime is essential to achieving the conditions necessary for nuclear disarmament, and the Report outlines further steps to strengthen the non-proliferation regime. In addition, the Report considers how the nuclear industry can be developed in ways that best contribute to achieving the goals of non-proliferation and disarmament.

The ICNND Report contains 76 recommendations. This paper will discuss those concerning non-proliferation – specifically, how the NPT and the IAEA safeguards system can be further strengthened.

1. INTRODUCTION

The International Commission on Nuclear Non-Proliferation and Disarmament (ICNND) was established by the Australian and Japanese Governments in September 2008. ICNND was given a two-year mandate to strive towards achieving three goals:

- To reinvigorate the global debate on the need to prevent the further spread of nuclear weapons and for nuclear disarmament, and to strengthen the Nuclear Non-Proliferation Treaty (NPT) by seeking to shape a global consensus in the lead up to the 2010 NPT Review Conference, and beyond;
- To make proposals to bring the non-NPT nuclear-armed states into the global non-proliferation and disarmament system; and
- To address the important issue of ensuring that any expanded use of nuclear energy due to climate change and energy security concerns does not result in an associated increase in proliferation risks.

ICNND's report, *Eliminating Nuclear Threats: A Practical Agenda for Global Policymakers*, was released on 15 December 2009. The report contains 76 recommendations in all. This paper discusses those concerning non-proliferation – specifically, how the NPT and the IAEA safeguards system can be further strengthened.

The Commission's report and the numerous research papers are available on the ICNND web site, www.icnnd.org. The author of this paper is a member of ICNND's Advisory Board,

prepared a number of research papers including on safeguards and verification, the nuclear fuel cycle, and proliferation resistance, and contributed to the drafting of the ICNND report.

2. STRENGTHENING THE NPT

On the NPT, the Commission looked at the longer term and also at recommendations for the 2010 NPT Review Conference. The Commission considered the current strains on the NPT, including the wide feeling of disappointment at the pace of nuclear disarmament, failures of both verification and of compliance and enforcement action, and the spread of sensitive nuclear technology.

What the Commission had to say about verification failures is discussed in section 3 below. On compliance and enforcement failures, the Commission notes that North Korea acquired plutonium from its nominally civil program while a party to the NPT, only to then walk away from the Treaty, and test and make nuclear explosive devices: UN Security Council resolutions and efforts to negotiate a solution have so far proved fruitless.

The Commission further notes that Iran has asserted NPT Article IV rights to continue an enrichment program about whose scope and content it has not been transparent with the IAEA and which, as the then IAEA Director General stated in June 2009, “gives rise to concerns which need to be clarified to exclude the possibility of military dimensions to Iran’s nuclear program.” Reference of Iran’s non-compliance to the Security Council has produced sanctions resolutions, but no satisfactory substantive resolution of the problem.

The Commission emphasised the importance of sufficiently strong action by the Security Council to enforce compliance, and expressed concern at the consequences of the Council’s inability or reluctance in this regard.

Compliance The Commission pointed out that the NPT is notable for having no executive machinery: in particular, no decision-making mechanism for determining Treaty compliance. Effectively, this is entrusted to the IAEA, through the Agency’s conclusions regarding compliance with safeguards agreements. The IAEA and its processes bear directly on the effectiveness of the NPT, in that a finding of non-compliance with a comprehensive safeguards agreement amounts inherently to a finding that the state is in violation of Article III of the NPT (the obligation to accept safeguards), and also, depending on the evidence, Article II (not to seek or acquire nuclear weapons).

Under the IAEA’s Statute, safeguards inspectors have the responsibility of determining in the first instance whether a state is in compliance with its safeguards agreement. They are required to report any non-compliance to the Board of Governors, and if the Board finds that non-compliance has occurred, it is required to report the non-compliance to the Security Council.

The Commission noted that confidence in the security guarantees afforded by the NPT depends to a large extent on how well compliance problems are addressed by this system. A basic problem is that a finding of non-compliance almost inevitably involves both technical and political dimensions: the Commission noted that in the case of Iran it appeared concern about the possible adverse consequences of a non-compliance finding led to the finding being delayed for three years, with significant risk to the integrity and credibility of the IAEA’s processes.

The Commission stressed the importance to maintaining credibility of the IAEA’s processes for the IAEA to confine itself essentially to technical criteria, applying these with consistency and credibility, and leaving the political consequences for the Security Council to determine. The Commission noted that issues of standard of proof become relevant here, and considered that the IAEA has not helped itself by in practice setting the bar higher than its own standard safeguards

agreements, which provide, e.g., that a state may be found in non-compliance if the Agency is not able to verify that there has been *no* diversion.

Withdrawal from the NPT Having regard to the North Korean precedent, the Commission was particularly concerned with the prospect of one or more states attempting to withdraw from the NPT. It was of concern that a state might be withdrawing for the very purpose of diverting a civil nuclear program to production of nuclear weapons, and escaping in the process from having its treaty obligations enforced. ICNND research papers pointed to a serious weakness in NPT safeguards agreements (INFCIRC/153), that if a state withdraws from the NPT the safeguards agreement lapses.

In addition to the following recommendations, the Commission suggested that a protocol to NPT safeguards agreements could be developed which applies safeguards in perpetuity to all existing nuclear material and facilities if for any reason the safeguards agreement ceases to apply. In the case of states found in non-compliance, this could be mandated by the Security Council.

The Commission made the following recommendations:

- The UN Security Council should severely discourage withdrawal from the NPT by making it clear that this will be regarded as *prima facie* a threat to international peace and security, with all the punitive consequences that may follow from that under Chapter VII of the UN Charter. (Recommendation 9)
- A state withdrawing from the NPT should not be free to use for non-peaceful purposes nuclear materials, equipment and technology acquired while party to the NPT. Any such material provided before withdrawal should so far as possible be returned, with this being enforced by the Security Council. (Recommendation 10)
- All states should make it a condition of nuclear exports that the recipient state agree that, in the event it should withdraw from the NPT, safeguards shall continue with respect to any nuclear material and equipment provided previously, as well as any material produced by using it. (Recommendation 11)

These recommendations were reiterated as suggested priorities for the 2010 NPT Review Conference (Recommendation 41).

3. STRENGTHENING IAEA SAFEGUARDS

The Commission discussed the essential role of safeguards, both in deterring diversion through the risk of detection, and through providing timely warning of diversion, to enable the international community to intervene. The Commission noted that the credibility of the safeguards system depends on confidence in two respects: verification capability, and the enforcement actions that are taken on verification findings. The Commission also considered the closely related question of the IAEA's institutional effectiveness.

Verification failures The Commission was particularly concerned that the IAEA has been insufficiently resourced, both in terms of authority and capabilities, to detect clandestine nuclear activities, and a number of serious violations have slipped through the net in recent years. The Commission discussed the cases of Iraq, Libya, Iran and Syria. These verification failures, the Commission pointed out, give both nuclear-weapon states and non-nuclear-weapon states cause for concern about the foundations of the NPT bargain they signed up to.

The Commission discussed the program to strengthen safeguards, particularly to establish the technical capabilities and legal authority necessary for detection of undeclared nuclear activities,

and noted the importance of effective use of information. The Commission considered that the IAEA's technical skills are increasing – but it cannot be expected to find undeclared nuclear activities unaided. Detecting undeclared nuclear activities – or providing credible assurance of their absence – requires an active partnership between the IAEA and states, and also relevant industry sectors.

Authority The Commission noted that an effective IAEA means in the first instance one with the necessary legal authority – this requires universalizing the Additional Protocol, and strengthening its provisions. States must be prepared to take further steps to strengthen the Agency's authority when deficiencies are identified. As a corollary of this, the IAEA must be prepared to make full use of the authority available to it. An illustration of reluctance to do so is the lack of use of special inspections, available where the Agency considers that information provided by the state is not adequate for it to fulfill its responsibilities, a procedure which was last invoked in 1993. The Commission considered that failure to use the full authority available not only compromises safeguards effectiveness, but is discriminatory against the great majority of states that are in full compliance with their safeguards commitments.

On the Additional Protocol (AP), the Commission noted that 90% of non-nuclear-weapon states party to the NPT with significant nuclear activities either had an AP in force or had signed an AP or had one approved by the Board of Governors. The Commission concluded “this degree of acceptance demonstrates that the combination of a comprehensive safeguards agreement and an Additional Protocol represents the contemporary standard for NPT safeguards.”

“Weaponization” activities The Commission considered that an area of major importance concerns the IAEA's rights to investigate the range of possible nuclear activities, other than the acquisition of fissile material, necessary for the manufacture of a nuclear weapon. On a conservative view, the IAEA can only investigate activities where there is a “nexus” with nuclear material. The question is, what is a sufficient nexus? The Commission concluded that since weaponization activities indicate intended, if not yet actual, diversion of nuclear material, they are clearly encompassed by the IAEA's responsibility under the NPT to provide timely warning of diversion. To the extent there may be doubts about the limits of the IAEA's mandate in this area, the Commission considered these should be addressed by the IAEA and member states and the necessary action taken to resolve them.

“Additional Protocol Plus” The Commission observed that concerns of the kind just discussed had led to suggestions that the current form of the Additional Protocol would benefit from further strengthening as to both reporting of information and access. Regarding information, the Additional Protocol provides for amendment of its technical annexes by the Board of Governors on the advice of an open-ended group of experts. The Commission considered that inclusion of relevant dual-use items is one area that requires attention in this respect, and another is for states to report to the IAEA on export denials as well as export approvals.

Regarding further access, the issues include shorter notice periods, and the right to interview specific individuals: regarding the latter point the Commission noted there is a sound argument this is already provided for in the IAEA's Statute, but suggested this should be put beyond doubt. At a minimum, the Commission concluded that the Additional Protocol's annexes should be updated along the lines discussed here, and a strengthened version of the Additional Protocol should be applied in cases of non-compliance, if necessary mandated by the Security Council.

Staffing and funding The Commission expressed concern about the resources available to the IAEA and called for these to be increased. These issues are beyond the scope of this paper and will not be discussed further here.

Organizational culture The Commission considered that the reasons for safeguards failures need to be carefully addressed and not just attributed to resource shortfalls, insufficient internal capabilities and inadequate information supply: there is a need to consider if systemic factors are involved, going to the whole organizational culture of the institution. Linked to this is the need for greater transparency in the IAEA's internal processes, how judgments are reached and decisions taken in the safeguards area especially, and a new approach to information sharing, in which states and the Agency work together as partners. The Commission suggested that an external review of these issues by the Zedillo Commission (Commission of Eminent Persons), or a successor panel, might be helpful in encouraging a rethink of entrenched institutional attitudes and practices.

The Commission considered that the need for cultural change also applied to states, particularly the attitude of states to cooperation. It can no longer be considered appropriate for states to regard safeguards as an imposition, with cooperation kept to the minimum. Safeguards are an essential international confidence-building measure. As the IAEA is now expected to provide more qualitative conclusions – the absence of undeclared nuclear activities – a state's cooperation and transparency to the Agency assume greater importance. The IAEA will need broader information, including access to locations and persons of interest. The Commission noted that denying access will simply serve to heighten international suspicions that a state has something to hide. It concluded that states need to look on safeguards as a mechanism they can use to demonstrate to others their commitment to non-proliferation.

The Commission's main recommendations on safeguards were:

- All states should accept the application of the Additional Protocol. To encourage universal take-up, acceptance of it should be a condition of all nuclear exports. (Recommendation 5)
- The Additional Protocol and its annexes should be updated and strengthened by adding specific reference to dual-use items, reporting on export denials, and shorter notice periods. (Recommendation 6)
- The IAEA's right to investigate possible weaponization activity, and the right to interview specific individuals, should be made clear. (Recommendation 6)
- With safeguards needing to move from a mechanistic to an information-driven system, there should be much more information sharing, in both directions, on the part of both states and the IAEA, with the Agency re-evaluating its culture of confidentiality and non-transparency. (Recommendation 7)
- In determining compliance, the IAEA should confine itself essentially to technical criteria, applying them with consistency and credibility, and leaving the political consequences for the Security Council to determine. (Recommendation 8)
- The IAEA should make full use of the authority already available to it, including special inspections, and states should be prepared to strengthen its authority as deficiencies are identified. (Recommendation 12)
- If the IAEA is to fully and effectively perform its assigned functions, it should be given, as recommended in 2008 by the Zedillo Commission:
 - (a) a one-off injection of funds to refurbish the Safeguards Analytical Laboratory;
 - (b) a significant increase in its regular budget support, without a "zero real growth" constraint, so as to reduce reliance on extra-budgetary funding for key functions;
 - (c) sufficient security of future funding to enable medium to long-term planning; and

(d) support from both states and industry in making staff secondments and offering training opportunities. (Recommendation 13)

- Consideration should be given to an external review, by the Zedillo Commission or a successor panel, of the IAEA's organizational culture, in particular on questions of transparency and information sharing. (Recommendation 14)

Recommendation 5 on application of the Additional Protocol and making it an export condition was reiterated as a suggested priority for the 2010 NPT Review Conference (Recommendation 41).

4. 2010 NPT REVIEW CONFERENCE

Regrettably the Final Document of the NPT Review Conference fell somewhat short of the ICNND recommendations. The Final Document was adopted in two parts: a *Review of the operation of the Treaty*, which was presented as a President's text and not agreed by consensus; and *Conclusions and recommendations for follow-on actions*, which were agreed by consensus.

The issue of withdrawal from the NPT was addressed only in the President's review, which noted there were divergent views regarding the interpretation of the right of withdrawal with respect to other relevant international law. The President's review noted that many states underscore that under international law a withdrawing party is still responsible for violations of the NPT committed prior to withdrawal. The President's review also noted that numerous states reaffirm the responsibility entrusted to the Security Council in the circumstances of withdrawal, and also that supplying states can consider dismantling and/or return clauses in supply arrangements. (Final Document paragraphs 119-122)

On the Additional Protocol, the President's review noted that implementation of AP measures provides increased confidence about the absence of undeclared nuclear material and activities, and noted that numerous states were of the view that those measures have been introduced as an integral part of the IAEA's safeguards system (Final Document paragraph 18). The *Conclusions and recommendations*, which as noted above represent the consensus of the Conference, encouraged all states parties which have not yet done so to conclude and bring into force Additional Protocols as soon as possible (Final Document Action 28).

The *Conclusions and recommendations* also recommended that IAEA safeguards should be assessed and evaluated regularly, and called on all states parties to ensure that the IAEA continues to have all political, technical and financial support to effectively meet its safeguards responsibilities (Actions 32 and 33).

5. CONCLUSIONS

The ICNND report is the most comprehensive report of its type, and no doubt it will take some time for governments and organisations to absorb and reflect on all the recommendations and discussion. The report emphasises the essential role of effective treaties and verification arrangements in supporting progress down the path of disarmament. Seen in this context, the operation of the NPT and IAEA safeguards are crucial – if these institutions do not work effectively this will undermine confidence in a rules-based approach to international relations and the ability to ever achieve a world free of nuclear weapons. It is vital that the Commission's recommendations on the NPT and IAEA safeguards are taken seriously and acted on.