

NATIONAL VIEWPOINTS

VIEWS ON STRENGTHENED SAFEGUARDS FROM AUSTRALIA, CUBA, & SOUTH AFRICA

AUSTRALIA: SOLIDIFYING SUPPORT

BY IAN BIGGS

Australian interest in a strengthened system of nuclear safeguards is based on determination that nuclear weapons not spread. With the international community, we concluded from events of the early 1990s that the system needed to be strengthened.

Our confidence in non-proliferation depends on the global framework of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), treaty-level reciprocal undertakings, and a competent inspectorate impartially implementing a coherent set of checks.

Australia's enthusiasm for non-proliferation and its safeguarding is based on:

- our awareness that the relative stability in strategic terms of our own region, over several decades, is a blessing contingent upon the absence of weapons of mass destruction, and not to be squandered; and
- hard-won political consensus that Australian participation in the international nuclear industry -- especially through uranium exports -- is a responsible position, but only so long as we can be assured that we are

not unwittingly contributing to the spread of nuclear weapons.

Insistence on the strongest realizable safeguards, through bilateral agreements with our trade and cooperation partners as well as the multilateral system, is (with the highest possible standards of safety) a corollary of our facilitating the exploitation by others of nuclear power and related technologies.

Australians have been involved with the IAEA's safeguards system since the first plenary meeting of the Conference on the IAEA Statute in 1956. We joined the NPT in 1973 and began concluding bilateral safeguards agreements in 1977.

Institutions have of course evolved, but the current arrangement involves:

- national policy developed through the Department of Foreign Affairs and Trade's Nuclear Policy Branch;
- scientific expertise advanced by the Australian Nuclear Science and Technology Organization (ANSTO); and
- safeguards concepts developed and applied by ASNO, the Australian Safeguards and Non-Proliferation Office (which also manages our involvement with other weapons of mass destruction treaties -- principally the Chemical

Weapons Convention and the Comprehensive Nuclear-Test-Ban Treaty).

Australians from ANSTO and ASNO and the universities have served as inspectors, and we remain keen that Australian participation continue at least at the present level (five, as of November 1999). One of the more robust arguments for equitable geographical distribution of such posts in international organizations is that the involvement of relevant personnel from the national agencies tends to legitimize the universal application of international norms.

In the aftermath of the Agency's discomfiture over the discovery of Iraq's clandestine nuclear-weapons programme, Australian officials from Canberra and the Vienna mission were active in the negotiation of a major strengthening of international safeguards. Through informal groups like the so-called G-16 (representatives of Vienna missions from many regions, meeting in the Australian Embassy), we sought to build global consensus for a

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verification system more thorough than any of its precedents or counterparts in global arms control.

The strengthened safeguards system has many distinctive features. (*See related articles in this edition.*) They extend to access that would be thought intrusive by many governments if it were not so clearly warranted by the menace of nuclear threat, and to employment of monitoring techniques that could be thought hostile if they were not authorized by the consensus of the members of a major multilateral organization.

The fundamental question has changed, too: not whether declared material has been diverted, but whether any activities have not been declared. And the principle of uniformity of Agency inspectors' attention will in effect be modified by differentiation among States on the non-subjective bases of their nuclear capabilities, openness with information, and exposure to proliferation pressures.

Australia is determined to see strengthened safeguards locked in before any international developments undermine the non-proliferation norm. We have made repeated representations on behalf of the Model Additional Protocol, in bilateral security-related or nuclear-policy talks and in regional fora (for example, the IAEA Seminar in Taejon, Republic of Korea, in October 1999). Our constant message is that the effective safeguarding of non-proliferation is a universal responsibility and provides

crucial assurance, even for States without nuclear facilities. Indeed, for non-nuclear States, the conclusion and implementation of a Comprehensive Safeguards Agreement and Additional Protocol is a low-cost, low-pain investment in regional as well as global stability.

For those States for which strengthened safeguards will be a significant impost, only the most reliable system will be worth the effort; only real assurance (and deterrence of potential proliferators) will persuade national governments and legislatures to conclude and ratify Additional Protocols. And as soon as the global network of Additional Protocols is sufficiently complete that a new international norm can be recognized, Australia will be looking for recognition through the NPT review process and the IAEA's policy-making organs that strengthened safeguards constitute "the Agency's safeguards system" referred to in Article III.1 of the NPT -- that only compliance with INFCIRC/540 (Corrected)* can fulfil States' NPT safeguards obligations.

Though strengthened safeguards must remain a non-proliferation tool first, they may also be an aid to government's decision-making about trade. In other words, globally implemented strengthened safeguards will significantly increase levels of

confidence in the feasibility of nuclear and related trade (even if that confidence can never be so absolute as to prohibit the exercise of national discretion).

The implementation of our Additional Protocol, and preparations for the global application of strengthened safeguards, have required the adjustment of inspection frequency and approach, declarations and reporting, and expectations as to the conclusions to be drawn at the State level from safeguards. But with the budgetary constraints to which the Australian Government, like the IAEA, is subject, this adjustment has been achieved by exploiting the flexibility of present staff without augmentation. The main direct financial cost to Australia of compliance with the Additional Protocol is that of increased domestic travel by those ASNO inspectors responsible for facilitating additional IAEA access pursuant to the Protocol. The accumulation in the inventories of our trading partners of Australian-Obligated Nuclear Material, all of which has by Australian law to be accounted for, applies concurrent pressure on our national safeguarding capacity -- leading, not least, to our paying close attention to questions of cost-effectiveness, for example with respect to timeliness and therefore inspection frequency.

Australia is proud of the contribution made by our experts (principally from ASNO) to the development of strengthened safeguards measures -- through participation in expert groups

* *Model Protocol Additional to the Agreement(s) Between State(s) and the International Atomic Energy Agency for the Application of Safeguards* (September 1997).



(including the IAEA's Standing Advisory Group on Safeguards Implementation), the presentation of training courses (funded by the Australian Agency for International Development), and, in effect, field testing.

Australia's Additional Protocol (ratified in December 1997) was in force nearly two years before those of comparable States. We were therefore first to face the hurdles of expanded declaration, complementary access, and State-level evaluation.

Accordingly, optimizing the effectiveness and efficiency of all the safeguards measures available to the IAEA by integrating their application has been an immediate preoccupation for us. Australia subscribes simultaneously to the views that:

- new measures must not be relied upon until proven;
- processes (such as nuclear materials accountancy) should not be perpetuated without

periodic review (redundancy or desirable overlap is a matter of probabilistic and political judgement); and
 ■ changes in technology, declared quantities of safeguarded material, and the nature of the assurance being sought mean that neither indefinite zero-change budgets, nor an expectation of relentless inflation is likely to be a safe guide to resource requirements.

Funding will never be entirely satisfactory, but nor must credible assurance be sacrificed. Inspection rights must be exercised; voluntary offers must be taken up; pain (or better, transparency) must be shared.

There are several safeguards-strengthening measures yet to be fully developed. In wide-area environmental sampling, satellite imagery, and remote monitoring, for example, Australia can provide and has provided the Agency's inspectorate and analysts with a safeguards-friendly

environment, with co-operative and experienced personnel, in which to advance that development.

Australia granted the IAEA "anywhere/any time" safeguards access as far back as 1992, has been subject to environmental monitoring since 1994, provided an expanded declaration in 1994, and welcomed a no-notice complementary inspection in 1995.

At the IAEA in Vienna, our support projects have covered, for example, verification approaches for uranium-mining and milling sites, search trees for the exploitation of open-source information as an indicator for Agency attention to a location or activity, and the preparation of background material for Agency use in the event of Conference on Disarmament tasking related to a Fissile-Material Cut-off Treaty -- the logical next step towards the eventual elimination of nuclear weapons, and one that will require verification.

As will be evident from our participation, Australia has the greatest of respect for the IAEA Secretariat's coordinated efforts (kick-started by a Consultant's Meeting of December 1998 in which Australia chaired the principal Working Group) to strengthen and integrate the system. These coordinated efforts have included cross-divisional working groups, the advice of consultants and external experts, and a Safeguards Department-level commitment to re-organizing for the rapidly evolving set of tasks comprising nuclear safeguards. □

Photo: Australia was the first IAEA Member State to accept the new strengthened safeguards measures, signing the Additional Protocol in September 1997. Shown are Ambassador Lance Joseph (right) and former IAEA Director General Hans Blix.

(Credit: Pavlicek/IAEA)

CUBA: FORGING NEW COMMITMENTS

BY ENRIQUE FRANKLIN
SABURIDO

At the end of the 1970s, Cuba decided to establish the infrastructure required to assimilate nuclear power as part of an integrated development strategy.

For that purpose, it signed two basic agreements with the Government of the former Soviet Union. One agreement concerned the design, supply and construction of a nuclear power plant with two WWER-440 type units, an improved B-318 model. The other agreement concerned the design, supply and construction of a nuclear research centre with an IRT-type 10 megawatt research reactor (made in the former Soviet Union), as well as a critical assembly (zero-power reactor) made in Hungary and included in a pre-existing agreement with that country.

Although these intergovernmental agreements and their respective implementation contracts were signed, in no case were the conditions for the supply of nuclear material agreed.

Safeguards Agreements. To implement these intergovernmental agreements, Cuba took steps for the negotiation and subsequent signature of INFCIRC/66-type safeguards agreements, and the corresponding subsidiary arrangements, with the IAEA. These safeguards agreements were distributed by the

Secretariat of the IAEA numbered as follows:

■ **INFCIRC/281** - The text of the agreement of 5 May 1980 between the Agency and Cuba relating to the application of safeguards in connection with the supply of a nuclear power plant;

■ **INFCIRC/298** - The text of the agreement of 25 September 1980 between Cuba and the Agency for the application of safeguards in connection with the supply of a nuclear research reactor from the Union of Soviet Socialist Republics;

■ **INFCIRC/311** - The text of the agreement of 7 October 1983 between Cuba and the Agency for the application of safeguards in connection with the supply of a zero-power nuclear reactor from Hungary.

In the 1980s, and particularly the second half of that decade, Cuba made substantial progress in the nuclear field. An appropriate infrastructure conducive to the safe use of nuclear applications was established, and steps forward were made in the construction of the Juraguá power plant, and in the design and construction work for the Nuclear Research Centre.

However, as a result of the changes that took place in the global political system at the end of the 1980s and the beginning of the 1990s culminating in the dissolution of the Soviet Union, the implementation of the aforementioned basic agreements was suspended.

In the light of this process and well-known external political factors, the Cuban Government decided to revise the strategic directions of the Cuban nuclear programme.

On 5 September 1992, the construction of the Juraguá nuclear power plant was temporarily suspended for economic and financial reasons, and it has not yet been resumed. The vast majority of the supplies for unit one and part of those for unit two are stored in sites designated for that purpose. A costly storage programme has been implemented which has made it possible to maintain the plant in suitable condition to continue the construction work when conditions permit. A feasibility study was also concluded and this demonstrated the technical and economic viability of the construction work. It should be noted that circumstances prevented third parties who could potentially participate in the completion and commissioning of the nuclear plant from doing so, despite the interest that they had shown.

In September 1993, Cuba informed the IAEA of its Government's decision not to continue the work on the design and construction of the research reactor for the above-mentioned reasons, and requested the termination of the Safeguards Agreement INFCIRC/298 relating to the research reactor. In connection with that objective, Cuba did not receive any type of supplies, and the design work was not completed.

In response, the IAEA Secretariat agreed to terminate

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the INFCIRC/298 Agreement; the Board of Governors took note of the decision at its meeting in March 1995.

As a result of these actions, two INFCIRC/66-type safeguards agreements remain in force between Cuba and the IAEA: INFCIRC/281 (in connection with the supply of a nuclear power plant) and INFCIRC/311 (in connection with the supply of a zero-power nuclear reactor).

In this connection, it should be noted that no nuclear material has been received on the national territory under Cuba's jurisdiction, and that no such material requiring safeguards exists on that territory. The parts and components of the installations subject to safeguards in accordance with the aforementioned agreements are subject to IAEA inspections.

Nuclear Non-Proliferation Undertakings. Cuba's position with respect to multilateral instruments in the nuclear non-proliferation field -- namely, the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) and the Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean (Tlatelolco Treaty) -- have been consistently expressed to the international community.

■ Cuba considers that the NPT is neither practical nor morally acceptable as it divides the world into two categories of States: the nuclear-weapon States and the non-nuclear-weapon States, which is evidence of its discriminatory nature.

■ The lack of will of the nuclear-weapon States to honour the Preamble of the

Treaty in a serious and responsible manner; the fact that no specific goals have been set for total, unconditional and verifiable nuclear disarmament makes the current non-proliferation regime inconsistent.

■ Cuba considers that universality is a goal that cannot be achieved given the current scheme of things and the intention to build a nuclear non-proliferation regime on a discriminatory basis, giving immense privileges to a very small number of countries.

■ Cuba stresses the need for specific and immediate steps to achieve total, unconditional and verifiable disarmament. This is the only fair basis for building a solid and consistent nuclear non-proliferation regime. Thus, the nuclear club should shut its doors forever and have no members, i.e., no "privileged tenants".

■ Cuba's reservations concerning the Tlatelolco Treaty were submitted in the Declaration made at the time it signed the Treaty on 25 March 1995. Despite the fact that no favourable changes in the Cuban environment had been recorded, Cuba agreed to sign the Treaty as a gesture of goodwill. On that occasion, the following was stated: "The Government of the Republic of Cuba declares that the obstacles which have until now prevented the Republic of Cuba from becoming a full party to the Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean remain and continue seriously to affect Cuban security. The only nuclear power in this part of the world, the United States

of America, is maintaining a policy of hostility towards Cuba; it is intensifying its economic, commercial and financial blockade, reinforcing its campaign against the country and maintaining by force and against the will of our people the illegal occupation of part of the national territory, through which even ships carrying nuclear weapons pass, a problem whose solution will in the future have to be considered a condition for our country to stay within this Treaty".

■ Cuba supports the noble objectives of the Tlatelolco Treaty since it considers that the word "prohibition" is broader in scope than "non-proliferation". The acceptance by all of a universal regime for the prohibition of nuclear weapons would eliminate the inconsistency brought about from the maintenance of a discriminatory regime such as the one established by the NPT. Nevertheless, the strengthening of the climate of hostility and aggression to which a major nuclear power has subjected Cuba since it signed the Treaty has prevented ratification.

■ With respect to safeguards, the INFCIRC/153-type agreements established pursuant to the Tlatelolco Treaty and the NPT have equal status. This was confirmed by the IAEA Board of Governors at its meeting in June 1995 since, technically, the agreements are similar in scope and involve the same undertakings. In this respect, Cuba has been preparing itself in technical and legislative areas so as to be able to comply

with the scope of the new commitments it will be undertaking when political conditions are right.

Transfer of Nuclear Technology. For more than four decades, Cuba has been subjected to an economic, political and financial blockade that has hindered, *inter alia*, the transfer of technology. At the beginning of 1996, the US Congress passed a law that in effect considers the completion of any nuclear facility in Cuba as an act of aggression against the United States.

From Cuba's perspective, such actions make it clear that the free transfer of nuclear technology and the national security of Cuba are not guaranteed through the signing of multilateral agreements or treaties, but rather by one State's restrictive political policies.

For its part, in July 1993, Cuba signed a revised supplementary agreement with the IAEA giving full guarantees concerning its use of the Agency's technical assistance for the peaceful applications of nuclear energy.

Strengthened Safeguards. Cuba always has attached special importance to nuclear safeguards activities, recognizing their high priority as well as the important role they have with respect to international disarmament and security.

This position was emphasized by the Cuban delegation during the work in the 1990s on measures for strengthening the effectiveness and improving the efficiency of the IAEA safeguards system. The work resulted in adoption of the Model Additional Protocol to safeguards

agreements, or INFCIRC/540 (Corrected).

Although the Cuban authorities hold the view that the provisions of the Protocol are applicable only to States with "full-scope" safeguards (INFCIRC/153-type agreements), the possibility remains for States with other types of agreements to study the adoption of some of the measures provided for in the Additional Protocol.

Cuba should be seen as a very special case among the group of countries with INFCIRC/66-type agreements. The Cuban nuclear programme is modest in scope and is completely peaceful and transparent in nature. All Cuba's nuclear activities are declared and accessible to inspection. In October 1999, Cuba underscored this commitment by signing an Additional Protocol to its safeguards agreements relating to the provision of information and complementary access to facilities.

Accordingly, Cuba became the first non-signatory to the NPT to accede to the Protocol. In commenting on the action, IAEA Director General Mohamed ElBaradei called the decision an important step by Cuba that would permit a better flow of information to the IAEA on the island's nuclear activities.

Cuba's view is that universal accession to the Additional Protocol could help to strengthen non-proliferation. In this regard, the adoption of far-reaching and practical commitments, initially by nuclear-weapon States, will play an important role. In summary, Cuba's new

commitment to strengthened safeguards underlines its abiding interest in securing the peaceful uses of nuclear energy.

■ The Cuban nuclear programme is completely peaceful and transparent in nature, and all the activities are declared. Cuba signed the Tlatelolco Treaty in March 1995, but has not ratified it. Although Cuba has not negotiated a full-scope safeguards agreement with the IAEA, all of its facilities are subject to safeguards individually, in accordance with the agreements legally established between Cuba and the Agency.

■ Cuba has an organizational infrastructure, including radiation protection and nuclear regulation, sufficient for the safe and controlled use of nuclear energy for peaceful purposes, and that stands in accordance with all the requirements demanded in the area of safeguards.

■ The current nuclear non-proliferation regime is discriminatory and inconsistent. The division of States into nuclear "haves" and "have nots" and the absence of practical steps towards total, unconditional and complete nuclear disarmament make universality a goal that cannot be achieved given the current state of affairs. The nuclear club must close its doors once and for all and should not have any members.

■ The right time for Cuba to ratify the Tlatelolco Treaty will be inextricably linked to the change in the conditions conducive to the establishment and consolidation of a climate of peace and full respect in the relations between the United

States and Cuba; this will require the lifting of any restrictive measure against Cuba, including the economic, commercial and financial blockade and the relevant legislation. Cuba will accede fully to the Tlatelolco Treaty when the aforementioned conditions are met. That step will be consistent with the policy for the full integration of Cuba in the Latin America and the Caribbean region.

■ So far, the Cuban Government's signing of bilateral and multilateral non-proliferation agreements has not achieved the free transfer of nuclear technology for Cuba.

■ Despite the present circumstances dictating the country's environment, Cuba has taken further steps to strengthen the Agency's safeguards system. At the same time, Cuba emphasizes its unequivocal commitment to total, unconditional and verifiable nuclear disarmament.

■ Though present conditions are not conducive to Cuba's ratification of the Tlatelolco Treaty, the prospects could change. Cuba hopes that future developments in the region will facilitate the taking of such a step. □



SOUTH AFRICA: THE NEXT STEPS

BY NOZIPHO JOYCE
MXAKATO-DISEKO

At the end of the Cold War, the international community had high expectations that we were entering a new period in which our differences would be less accentuated and we would seek common ground for the improvement of international stability, peace and security. Hopes were high that significant progress in disarmament and non-proliferation would be achieved overall.

This has, however, not been the case. The minimal progress achieved has been undermined by setbacks. The international community has witnessed new or expanded rationales for the retention, modernization and development of nuclear weapons.

As we approach the next millennium, nuclear disarmament and non-proliferation must be one of the most important issues facing the international community. If any lasting progress is to be accomplished, the safeguards and verification system provided by the IAEA must remain at the centre of the non-proliferation regime, ensuring that no diversion of nuclear material or equipment takes place, and giving assurances to Member States.

Ever since South Africa dismantled its nuclear capability

before accession to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) on 10 July 1991, the South African Government took a principled stance on the strengthening of the IAEA's safeguards system as a vital mechanism in the ultimate goal of non-proliferation. A mere seven weeks after accession to the NPT, South Africa signed a Comprehensive Safeguards Agreement with the IAEA on 16 September 1991.

The success of the safeguards system is highly dependent on transparency and full cooperation by Member States. At the time of the conclusion of the Comprehensive Safeguards Agreement with the IAEA, the then Government of South Africa adopted a policy of full transparency with the IAEA and extended a standing invitation to the Agency of visits "anywhere, any time, any place – within reason". This policy provided the IAEA the opportunity to gain access and data beyond the requirements of the Safeguards Agreement and permitted the IAEA's inspectors unlimited access to its nuclear facilities.

Consequently, the IAEA Director General reported to the 35th Session of the General Conference in 1992 that the IAEA had verified the Initial Report submitted by South Africa. South Africa had therefore, in a sense, already been exposed to the additional safeguards measures, and had

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Photo: A symbol of "Atoms for Peace" presented to the IAEA by South Africa in 1994.

demonstrated the necessity of such measures if there is to be reasonable certainty about the absence of a nuclear weapons programme in a given country.

When the democratically elected Government of President Nelson Mandela took office in May 1994, the Government extended its commitment to democracy, sustainable development, social justice and environmental protection to include also the promotion of global peace and security through the elimination of weapons of mass destruction.

In order to strengthen the safeguards and verification system nationally, legislation was also adopted to embody obligations brought about by South Africa's accession to the NPT and the Safeguards Agreement. Apart from the Non-Proliferation of Weapons of Mass Destruction Act which regulates the import/export of nuclear dual use material and equipment, the Nuclear Energy Act was adopted in 1993 to provide the legislative framework for the country's obligations under the NPT and Safeguards Agreement.

Strict adherence to the safeguards regime, complimented by cooperation and transparency, became one of the cornerstones of South Africa's disarmament policy.

South Africa has therefore been supportive of the concept of Strengthened Safeguards and the Model Protocol Additional to the Safeguards Agreement, ever since our return to the Board of Governors in 1995. South Africa was one of many countries that voiced its concern at the 1995 Review



and Extension Conference of the NPT (where we were instrumental in ensuring its indefinite extension) regarding the weaknesses in some areas of the then existing non-proliferation regime. It had become evident by then that the safeguards measures provided for in the IAEA model Safeguards Agreement were not entirely adequate to protect the world against the temptation of others to invest in clandestine nuclear weapons programmes.

On the eve of the 2000 Review Conference of the NPT, the international community can congratulate the IAEA for having successfully completed the mammoth task of the improvement and strengthening of the safeguards system, by

introducing the Model Protocol Additional to the Safeguards Agreement. It is heartening to note that 46 countries already have accepted the Protocol. South Africa is soon to ratify it.

The strengthened safeguards system undoubtedly underlines the determination of the international community to further enhance nuclear non-proliferation and underscore the IAEA's importance as a vital component in global nuclear non-proliferation.

New challenges are posed by the "Trilateral Initiative" between the Russian Federation, the USA and the IAEA. As this system will expand to more facilities and countries, the costs involved will automatically increase. South Africa remains hopeful that the international community will address these challenges in a mature and cooperative way. □

Photo: Nuclear safeguards provide assurances about the peaceful uses of nuclear technologies in many fields.