

# PROTOCOLS FOR STRENGTHENED SAFEGUARDS: PROGRESS & PROSPECTS

BY JAN PRIEST & LAURA ROCKWOOD

On 15 May 1997, the IAEA Board of Governors approved a model for a new legal instrument designed to strengthen the effectiveness and improve the efficiency of the IAEA safeguards system: the Model Protocol Additional to IAEA Safeguards Agreements. It was the most significant revision to the Agency's safeguards system since the adoption in the 1970s of the first guidelines for comprehensive safeguards agreements with non-nuclear-weapon States pursuant to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT).

This article describes the features of the Model Additional Protocol in general terms, and looks at progress and prospects concerning the conclusion of Additional Protocols with States.

## BACKGROUND OF DEVELOPMENTS

Although originally developed for use in connection with

obligations of non-nuclear-weapon States under the NPT, the IAEA document issued as INFCIRC/153 (Corrected) has been used as the basis for comprehensive safeguards agreements concluded with other States as well.

Comprehensive safeguards agreements are distinguished from other types of IAEA safeguards agreements. These types include those concluded by the five nuclear-weapon States, which are referred to as "Voluntary Offer Agreements", and item-specific agreements based on INFCIRC/66/Rev.2 concluded with a number of other States.\*

Under comprehensive safeguards agreements, the Agency has the right and the obligation to ensure that all source or special fissionable material in all peaceful nuclear activities of the State is subject to safeguards, and that safeguards are in fact applied to such material. The Agency's obligation is not limited to nuclear material and facilities actually declared by a State; it

also extends to that which is required to be declared. Likewise, the Agency's right to information and its right of access to facilities and other locations are not limited to information, facilities, locations or material declared by the State. However, the Agency's right to carry out *routine inspections* is limited to those locations within a nuclear facility, or other locations containing nuclear material, through which nuclear material is expected to flow (strategic points).

Access to "undeclared" sites or to locations suspected of containing "undeclared" nuclear material has always been possible under the standard INFCIRC/153 provisions for *special inspections*. However, these provisions have not been interpreted by IAEA Member States as an unlimited right permitting the Agency to conduct "fishing expeditions" to seek out undeclared nuclear material or activities in the absence of some indications

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\*Comprehensive safeguards agreements are those concluded along the lines of IAEA document INFCIRC/153(Corr.) which requires States Parties to place under safeguards all nuclear material in all peaceful nuclear activities of the State, and not to divert such material to nuclear weapons or other nuclear explosive devices. Voluntary Offer Agreements have been concluded with China, France, the Russian Federation, the United Kingdom and the United States of America. INFCIRC/66/Rev.2 Agreements are being implemented in Cuba, India, Israel and Pakistan.

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Ms. Priest is Head of the Verification, Security of Material, and Safeguards Policy Section of the IAEA Office of External Relations and Policy Coordination. Ms. Rockwood is a Senior Legal Officer in the IAEA Legal Division.

as to the possible existence of such material or activities.

Before the 1990s, there were only a few occasions in which the Agency sought to carry out special inspections to verify the absence of undeclared material or activities. But even then, access was sought only at locations which the State had declared to the Agency. Information that was sufficiently specific to suggest that access to undeclared locations was called for in a particular State had never been made available to the IAEA. Moreover, some States still had considerable political reservations about the exercise of such a right by the IAEA.

It was not until 1990-91 that sufficient political consensus had developed to support the full exercise of the IAEA's authority with a view to its providing improved assurances as to the absence -- in a State with a comprehensive safeguards agreement -- of undeclared nuclear material and activities.

By the end of the Cold War, States' perceptions of security concerns were changing. The international community was pressing for more active measures with the goal of eliminating the risk posed by weapons of mass destruction.

At the August 1990 NPT Review Conference, the States Parties agreed on language welcoming an Agency study on the matter. Specifically, the study called for examining the possible scope, application and procedures for special inspections in NPT-safeguarded States where uncertainty existed about a State's conformance with the NPT's purpose and, in particular, whether it had declared to the Agency all nuclear material required to be subject to safeguards.

Much of the momentum in this regard was attributable to growing concerns about compliance by Iraq and the Democratic People's Republic of Korea (DPRK) with their obligations under the NPT.

It was the discovery in 1991 of Iraq's clandestine nuclear weapons programme which confirmed the need for, and dramatically underscored the importance of, the IAEA's providing assurances not only of the non-diversion of declared nuclear material, but of the absence of undeclared nuclear activities in States having comprehensive safeguards agreements. This was reaffirmed by IAEA Member States in their collective demand for assurances

concerning the completeness of South Africa's initial declaration of its nuclear material inventory required in accordance with its NPT safeguards agreement.\*

Following entry into force of the DPRK's safeguards agreement in April 1992\*\*, and drawing on its experiences in Iraq and in South Africa, the IAEA was able to bring to the world's attention its concerns about the possibility of the existence in the DPRK of undeclared nuclear material and activities. Although the DPRK had initially invited the IAEA to conduct "anywhere, anytime" visits in pursuing its verification of the DPRK's initial declaration of its nuclear inventory, the request by the IAEA for access to visit two particular sites which appeared to be related to nuclear waste (and which might shed some light on inconsistencies between what the DPRK had declared and the Agency's findings) was declined.

The situation made it necessary in February 1993 for the IAEA to request formally, through special inspections, access at those locations and to additional information. The DPRK's rejection of that request led to a report to the United Nations Security Council on the DPRK's non-compliance with its safeguards agreement and of the existence of information which suggested that the DPRK had failed to declare to the IAEA all nuclear material required to be safeguarded under its safeguards agreement. As the IAEA had (and has) no enforcement powers under its safeguards agreements, it was for the Members of the

\* South Africa became a party to the NPT in July 1991. The safeguards agreement concluded by South Africa pursuant to the NPT was signed and entered into force on 16 September 1991 (IAEA document INFCIRC/394). In March 1993 South Africa announced that it had formerly completed six nuclear weapons, that the weapons programme had been terminated, and that all of the weapons had been dismantled before South Africa became an NPT party. The Government then voluntarily offered the IAEA extensive access to locations, information and materials with a view to assisting the Agency's inspectors in verifying the termination of the weapons programme.

\*\* The DPRK agreement was approved by the Board of Governors on 12 September 1991, and was signed by both parties on 30 January 1992. However, the agreement did not enter into force until 10 April 1992.

Security Council to take whatever action they deemed necessary, including action under Chapter VII of the United Nations Charter, to respond to threats to international peace and security.

Collectively, these events demonstrated that the strength of the IAEA's safeguards system depended upon three interrelated elements. These were:

- the extent to which the IAEA is aware of the nature and locations of States' nuclear and nuclear-related activities;
- the extent to which IAEA inspectors have physical access to relevant locations for the purpose of providing independent verification of the exclusively peaceful intent of a State's nuclear programme;
- the will of the international community, through IAEA access to the United Nations Security Council, to take action against States that are not complying with their non-proliferation commitments.

The last of these elements -- IAEA access to the Security Council -- was re-affirmed immediately, as was the will of the Council to act promptly and decisively in the face of reports of a State's non-compliance with its non-proliferation undertakings and its safeguards agreement.

In the longer term, it also became clear to IAEA Member States that, for the IAEA to provide increased assurance of the absence of undeclared nuclear material, it was imperative to update the safeguards system by integrating into it measures that would give the Agency an improved capability of

detecting clandestine nuclear activities.

This was achieved in several ways:

- through the implementation of certain measures under existing legal authority; they included the provision of additional information on facilities, the expanded use of unannounced inspections, the collection of environmental samples at locations where inspectors had access under existing agreements and the use of advanced technology to monitor remotely the movements of nuclear material; and

- by the introduction of new measures not within existing legal authority; they included information about, and inspector access to, all aspects of States' nuclear fuel cycles, from uranium mines to nuclear waste and any other location where nuclear material intended for non-nuclear use is present; information about, and inspection of, nuclear fuel cycle-related research and development; information on, and short-notice inspector access to, all buildings on a State's nuclear sites; information on the manufacture and export of sensitive nuclear-related technologies and inspector access at manufacturing and import locations; the collection of environmental samples at locations other than those declared by the State when deemed necessary by the IAEA; and administrative arrangements that improve the process of designating inspectors, the issuance of multi-entry visas (necessary for unannounced inspections) and IAEA access to modern means of

communication (e.g., satellite communications systems).

## PROTOCOL FEATURES

These measures were negotiated by a committee of the Board of Governors into the Model Additional Protocol, issued as IAEA document INFCIRC/540 (Corrected). The model is intended as the standard for individual Additional Protocols to be concluded with States having comprehensive safeguards agreements. The text consists of a five-paragraph preamble, eighteen articles and two annexes.

**Preamble.** The language of the Preamble reflects the backbone of the negotiations: the need for a balance to be struck between, on the one hand, the "desire of the international community to further enhance nuclear non-proliferation by strengthening the effectiveness and improving the efficiency of the Agency's safeguards system", and, on the other hand, the obligation to keep "the frequency and intensity of activities described in this Protocol ... to the minimum consistent with the objective of strengthening the effectiveness and improving the efficiency of Agency safeguards".

The language of the intervening paragraph of the Preamble summarizes some of the chief concerns of the non-nuclear-weapon States expected to conclude such a Protocol: "... the Agency must take into account in the implementation of safeguards the need to: avoid hampering the economic and technological development

of (the State) or international co-operation in the field of peaceful nuclear activities; respect health, safety, physical protection and other security provisions in force and the rights of individuals; and take every precaution to protect commercial, technological and industrial secrets as well as other confidential information coming to its knowledge.”

**Article 1.** This Article settled the legal issue of the relationship between the Protocol and the underlying safeguards agreement. It reflects the position asserted by the Secretariat that the basic undertaking of the safeguards agreements remains the same: for States with comprehensive safeguards agreements, the focus is still the provision of assurances that nuclear material required to be subject to safeguards is in fact declared under safeguards and that no nuclear material required to be declared to the IAEA goes undeclared. The purpose of the Protocol was to provide the IAEA with additional and improved tools with which to achieve that end. The Protocol is thus in the nature of an “add-on” to the underlying agreements.

Most of the Protocol’s provisions were drafted in such a way as to supplement the provisions of INFCIRC/153, and many provisions in INFCIRC/153 would apply *mutatis mutandis* to the implementation of the Protocol. However, it was recognized that a few of the provisions of the agreement would, of necessity, be superseded by the Protocol (e.g., the designation of

inspectors), while other provisions of the agreement would simply not be applicable to the Protocol (e.g., paragraph 7 of INFCIRC/153).

Thus, the language of Article 1 states that the provisions of the underlying safeguards agreement “shall apply to this Protocol to the extent that they are relevant to and compatible with the provisions of this Protocol”. In case of conflict between the provisions of the safeguards agreement and those of the Model Protocol, the provisions of the Protocol are to apply.

Articles 2 and 3 of the Model Protocol relate to the “Provision of Information”.

**Article 2.** It is divided into three parts:

**a. Information required to be provided to the Agency by the State.** These elements include information about the following:

- (i) nuclear fuel cycle-related research development activities not involving nuclear material carried out anywhere that are funded, specifically authorized or controlled by, or carried out on behalf of, the State. The significance of this language is that it requires the State to declare such activities regardless of whether they are carried out within the State or on the territory of another State;
- (ii) operational activities of safeguards relevance at facilities and locations outside facilities where nuclear material is customarily used (LOFs);
- (iii) all buildings on the site of each facility and LOF in the State;
- (iv) key activities listed in Annex I of the Protocol. These

include activities which, while not necessarily involving the use of nuclear material, are key to nuclear-fuel cycle programmes;

- (v) uranium mines and concentration plants and thorium concentration plants;
  - (vi) inventories, exports and imports of nuclear material which are not currently required to be declared to the IAEA under INFCIRC/153 (nuclear material referred to as “pre-safeguards” material);
  - (vii) nuclear material which has been exempted from safeguards (for example, nuclear material exempted for use in a non-nuclear activity);
  - (viii) intermediate or high-level waste containing plutonium, high-enriched uranium or uranium-233 on which safeguards have been terminated;
  - (ix) specified equipment and non-nuclear material listed in Annex II of the Protocol;
  - (x) general plans for the succeeding ten-year period relevant to the development of the nuclear fuel cycle;
- b. Information which the State is required to “make every reasonable effort to provide to the Agency”.** These elements include information about the following:
- (i) nuclear fuel cycle-related research and development activities not involving nuclear material which are specifically related to enrichment, reprocessing of nuclear fuel or the processing of intermediate or high-level waste containing plutonium, high-enriched uranium or uranium-233 that are carried out anywhere in the State, but which are not funded, specifically authorized

or controlled by, or carried out on behalf of, the State;

■ (ii) activities, and the identity of the person or entity carrying out such activities, at locations identified by the Agency outside a site which the Agency considers might be functionally related to the activities of the site; and  
**c. Amplifications or clarifications of information provided under Article 2 of the Protocol, which States are required to provide upon request by the Agency.**

**Article 3.** It sets out the time limits for the provision of the information required under Article 2, including, *inter alia*, a requirement for an initial declaration of the information called for under Articles 2.a.(i), (iii)-(v), (vi)(a), (vii) and (x) and Article 2.b.(i), and annual updates of such information; annual declarations on exports and imports of pre-safeguards nuclear material; quarterly reports on exports of the specified equipment and non-nuclear material identified in Annex II of the Model Protocol; declarations of changes in locations of highly active waste and advance reporting of plans to further process such waste.

**Articles 4 through 10.** They contain the provisions concerning “Complementary Access”, the other cornerstone of the strengthened safeguards measures.

**Article 4** describes the why and when of complementary access: Access may be requested to assure the absence of undeclared nuclear material and activities and to resolve questions relating to the correctness and completeness of the information provided pursuant to Article 2

or to resolve an inconsistency relating to that information. Complementary access may also be requested to the extent necessary for the IAEA to confirm the decommissioned status of a facility or LOF.

Advance notice of at least 24 hours is required for complementary access, except for access to any place on a site that is sought in connection with design information verification visits or ad hoc or routine inspections on that site, which may be two hours or, in exceptional circumstances, less than two hours.

Article 4 also provides for the State to have an opportunity to clarify and facilitate the resolution of a question or inconsistency before a request for access is granted, unless the Agency considers that delay in access would prejudice the purpose for which the access is sought.

**Article 5** obliges a State to provide access to the Agency to any place on a site of a nuclear facility or a LOF, to any location where the State has declared nuclear material to be present (Article 2.a.(v)(viii)), and to any decommissioned facility or LOF. With regard to other locations identified by the State under Article 2.a or 2.b, if the State is unable to provide access to the Agency, the State is required to “make every reasonable effort to satisfy Agency requirements, without delay, through other means”. Article 5 also authorizes the Agency to carry out location-specific environmental sampling at any other location in the State specified by the Agency, provided that if the State is

unable to provide such access, the State must make “every reasonable effort to satisfy Agency requirements, without delay, at adjacent locations or through other means.”

**Article 6** identifies the activities which the Agency is authorized to carry out at the various categories of locations as set forth in Article 5. They include, *inter alia*, visual observation, collection of environmental samples; utilization of radiation detection and measurement devices, examination of records, including production and shipping records; the use of seals and other identifying and tamper indicating devices; and, in consultation with the State, other objective measures which are demonstrated to be technically feasible and the use of which has been agreed by the Board of Governors.

**Article 7** provides for managed access under the Protocol in order to prevent the dissemination of proliferation sensitive information, to meet safety or physical protection requirements, or to protect proprietary or commercially sensitive information, a concept borrowed from the Convention on the Prohibition of Chemical Weapons. However, as also provided for in Article 7, such arrangements are not to preclude the Agency from conducting activities necessary for the exercise of its rights and obligations.

**Article 8** contemplates the possibility of a State offering the Agency access to other locations in the State. It also provides that if a State requests the Agency to conduct verification activities at any



other location in the State, the Agency shall, without delay, make every reasonable effort to act upon that request.

**Article 9** provides for the use by the Agency of wide-area environmental sampling within the State at such time as the Board of Governors has approved the use of such sampling and the procedural arrangements for its use. As with other new technologies, the implementation of wide-area environmental sampling would require consultations between the Agency and the State.

**Article 10** of the Model Protocol requires the Agency to provide the State with statements on the results and conclusions of complementary access, and sets out the time frames within which the Agency is required to do so.

**Articles 11 and 12.** They establish simplified procedures for the designation of inspectors to the State, and require the State, within one month of the receipt of a request therefor, to provide a designated inspector with appropriate multiple entry/exit and/or transit visas, where required. If the State requires a visa, the visa must be valid for at least one year and must be renewed, as required, to cover the duration of the inspector's designation to the State.

**Article 13.** It provides for the conclusion of Subsidiary Arrangements, but does not suspend the implementation of the Protocol pending their conclusion.

**Article 14.** It reflects the need to modernize communications and data transmission systems, acknowledging the Agency's

right to protected free communication, including attended and unattended transmission of information. It establishes the right of the Agency to make use of internationally established systems of direct communications, including satellite systems and other forms of telecommunications which are not available for use in the State.

**Article 15.** The obligation of the IAEA to protect confidential information is underscored in Article 15, which requires Board approval and periodic review of a regime to ensure the effective protection of disclosure of commercial, technological and industrial secrets and other confidential information coming to the Agency's knowledge in the implementation of the Protocol.

**Article 16.** It sets out the procedures for the amendment of the technical annexes to the Model Protocol. Any such amendment will take effect four months after adoption by the Board of Governors acting upon the advice of an open-ended working group of experts. Such amendments would thus require no formal revision of the Protocol to become effective.

**Article 17.** It permits the State to elect entry into force of the Protocol upon signature or upon written notification that its statutory and/or constitutional requirements for entry into force have been met. In accordance with the Vienna Convention on the Law of Treaties, the Model Protocol also contemplates the

provisional application of the Protocol by a State after its signature pending its entry into force.

**Article 18.** It contains the definitions of terms used in the Model Protocol.

## RECORD OF PROGRESS

Although initially prompted by concerns about the effectiveness and efficiency of comprehensive safeguards agreements, the exercise in strengthening safeguards quickly expanded in response to concerns of non-nuclear-weapon States that they alone would bear the burden of the new measures. As a consequence, the fate of the Model Additional Protocol eventually hung on agreement to include in the text of the foreword to the Protocol a reference to the acceptance of Additional Protocol measures by States with non-comprehensive safeguards agreements. Many of the non-nuclear-weapon States had insisted on this point as a pre-condition for their backing of the exercise. Indeed, it was one of the last issues debated by the Committee.

Language was eventually agreed upon which requested the Director General:

■ To use the Model Protocol as the standard for Additional Protocols to be concluded by States and other parties with comprehensive safeguards agreements with the Agency. Such Protocols are to contain all of the measures in the Model Protocol.

■ To negotiate Additional Protocols or other legally binding agreements with nuclear-weapon States incorporating those measures provided for in the Model

## STATUS OF ADDITIONAL PROTOCOLS TO IAEA SAFEGUARDS AGREEMENTS

State	Approval*	Signed	In Force
Armenia	9/23/97	9/29/97	
Australia	9/23/97	9/23/97	12/12/97
Austria	6/11/98	9/22/98	
Belgium	6/11/98	9/22/98	
Bulgaria	9/14/98	9/24/98	
Canada	6/11/98	9/24/98	
China	11/25/98	12/31/98	
Croatia	9/14/98	9/22/98	
Cuba	9/20/99	10/15/99	
Cyprus	11/25/98	7/29/99	
Czech Republic	9/20/99	9/28/99	
Denmark	6/11/98	9/22/98	
Ecuador	9/20/99	10/1/99	
Finland	6/11/98	9/22/98	
France	6/11/98	9/22/98	
Georgia	9/23/97	9/29/97	
Germany	6/11/98	9/22/98	
Ghana	6/11/98	6/12/98	Provisionally applied
Greece	6/11/98	6/11/98	
Holy See	9/14/98	9/24/98	9/24/98
Hungary	11/25/98	11/26/98	
Indonesia	9/20/99	9/29/99	9/29/99
Ireland	6/11/98	9/22/98	
Italy	6/11/98	9/22/98	
Japan	11/25/98	12/04/98	12/16/99
Jordan	3/18/98	7/28/98	7/28/98
Lithuania	12/01/97	3/11/98	
Luxembourg	6/11/98	9/22/98	
Monaco	11/25/98	9/30/99	9/30/99
Netherlands	6/11/98	9/22/98	
New Zealand	9/14/98	9/24/98	9/24/98
Norway	3/24/99	9/29/99	
Peru	12/10/99		
Philippines	9/23/97	9/30/97	
Poland	9/23/97	9/30/97	
Portugal	6/11/98	9/22/98	
Rep. of Korea	3/24/99	6/21/99	
Romania	6/9/99	6/11/99	
Slovakia	9/14/98	9/27/99	
Slovenia	11/25/98	11/26/98	
Spain	6/11/98	9/22/98	
Sweden	6/11/98	9/22/98	
UK	6/11/98	9/22/98	
Uruguay	9/23/97	9/29/97	
USA	6/11/98	6/12/98	
Uzbekistan	9/14/98	9/22/98	12/21/98

\* by IAEA Board of Governors. *Note: All dates are in month/day/year. Status as 15 January 2000.*

Protocol that each nuclear-weapon State has identified as capable of contributing to the non-proliferation and efficiency aims of the Protocol, when implemented with regard to that State, and as consistent with that State's obligations under Article I of the NPT.

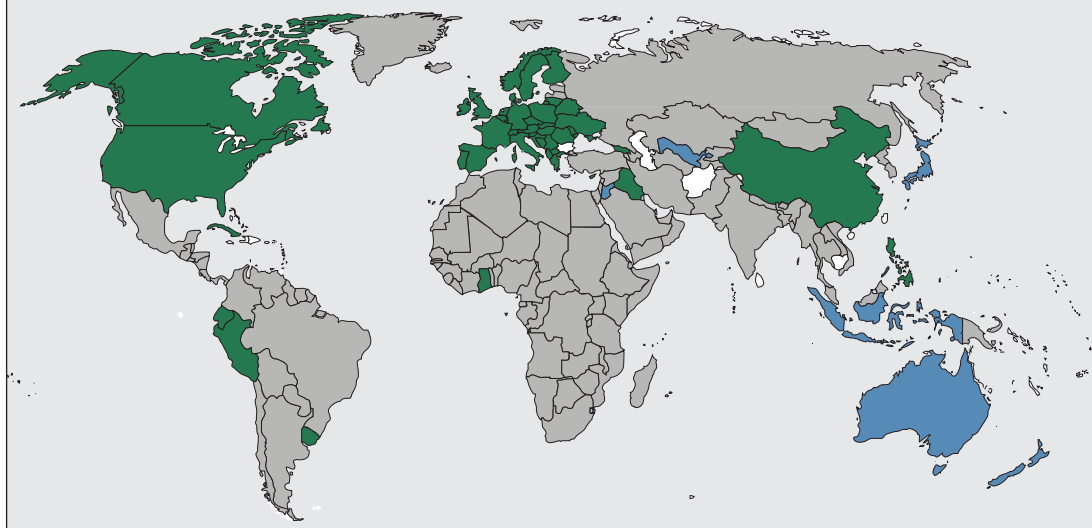
■ To negotiate Additional Protocols with other States that are prepared to accept measures provided for in the Model Protocol in pursuance of safeguards effectiveness and efficiency objectives.

Additional Protocols have been approved by the IAEA Board of Governors with 41 non-nuclear-weapon States with comprehensive safeguards agreements and one non-nuclear weapon State (Cuba) which has two non-comprehensive safeguards in force. (*See table, this page.*) Eight of these Additional Protocols are already in force; one (Ghana) is being applied provisionally pending its entry into force. One more (Georgia) will be applied provisionally upon entry into force of that State's safeguards agreement.

Prior to the adoption of the text of the Model Additional Protocol by the Board of Governors, each of the five nuclear-weapon States made statements concerning their respective intentions to accept some or all of the measures in the Model Additional Protocol. By and large, these stated commitments related to the acceptance of obligations with respect to the nuclear-weapon State's activities which had some nexus with the nuclear fuel cycles of non-

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STATUS AS OF 15 JANUARY 2000



nuclear weapon States. In their statements, some of the nuclear-weapon States also included a commitment to accept the simplified procedures for designation of inspectors and the issuance of visas.

As of December 1999, four nuclear-weapon States (China, France, United Kingdom, and United States) have concluded such Protocols. The scope differs among the four, with some being broader than others. As of December 1999, none of these four Protocols has entered into force.

## PROSPECTS FOR THE PROTOCOL

The prospects for the Additional Protocol are potentially exciting. Building on earlier strengthening measures, the model document embodies powerful new tools to help the IAEA verify a State's compliance with its non-proliferation commitments. They equip

the Agency well for challenges in the 21st century.

In combination with the relevant safeguards agreement (or agreements), the Additional Protocol provides for as comprehensive a picture as is practical about:

- all aspects of a State's nuclear fuel cycle;
- production of and holdings of nuclear material;
- activities regarding the further processing of nuclear material; and
- elements of the infrastructure supporting a State's current or planned nuclear fuel cycle.

The document also provides for wider physical access than hitherto, whether to ascertain that there are no undeclared nuclear material and activities at declared nuclear sites or at other locations where nuclear material is present, or in cases where there appear to be inconsistencies between what a State has declared about its nuclear programme and plans and the information available to the Agency.

**An Agreed Balance.** Also important is that the Model Additional Protocol reflects an agreed balance between rights and obligations on the part of the State and the Agency. Thus, if a State concluding an Additional Protocol incurs certain additional legal obligations, the other side of the coin is that its rights are protected through obligations on the part of the Agency.

These IAEA obligations include, for example:

- ensuring that broader access rights are not applied in any mechanistic or systematic fashion;
- providing advance notice to that State in writing for access rights, specifying the activities to be carried out;
- accepting managed access upon request by the State to prevent the dissemination of proliferation sensitive information or to protect proprietary or commercial sensitive information; and
- maintaining a stringent



regime to ensure effective protection against disclosure of all commercial, technological and industrial secrets coming to the Agency's knowledge in implementing the Additional Protocol.

Since the approval of the Model Additional Protocol by the IAEA Board of Governors in May 1997, States have expressed, in a variety of fora, the importance they attach to strengthened safeguards in general and to the Additional Protocol in particular. For example, tribute has been paid to strengthened safeguards and to the Model Additional Protocol during the preparatory process for the 2000 NPT Review Conference and at the United Nations General Assembly.

Against this background, it is disappointing to note that progress has been slow. More than 30 months after the Board approved the model document and asked the Director General to use it to conclude Additional Protocols with States and other parties to safeguards agreements, Additional Protocols with only 46 States have been submitted to the Board for approval.

Clearly, the full potential of the strengthened safeguards system can be realized only through universal adherence to the Additional Protocol and the enhanced assurance derived therefrom -- not only with regard to declared nuclear material and activities but also about the absence of undeclared material and activities. It is for that reason that the IAEA Secretariat has been making every effort to

encourage States which have not yet done so to conclude Additional Protocols.

A crucial, first step in this regard is that States which have not yet fulfilled their legal obligation to conclude a safeguards agreement with the Agency must do so promptly. For example, as of November 1999, some 52 States Parties to the NPT had yet to bring into force a comprehensive safeguards agreement required by Article III.1 of the Treaty. States need to take the required action, not least with a view to the NPT Review Conference this spring.

It is worth noting that, at the 1995 NPT Review and Extension Conference -- which further underscored the importance of safeguards to the implementation of the Treaty-- States Parties, *inter alia*, urged all States required to do so to bring the relevant safeguards agreements into force without delay. They also:

- made clear their view that the IAEA is the competent authority to verify compliance with safeguards agreements;
- reiterated that safeguards should be regularly evaluated and assessed;
- said that the Agency's ability to detect any undeclared nuclear material or activities should be increased; and
- said that decisions of the Board of Governors aimed at further strengthening safeguards should be supported and implemented.

It is to be hoped that the relevant NPT parties will heed these calls.

**Modalities for Concluding Protocols.** The modalities for concluding an Additional

Protocol are straightforward. For each State with a comprehensive safeguards agreement in force and which decides to conclude an Additional Protocol, all of the measures contained in the Model Additional Protocol in INFCIRC/540(Corrected) are mandatory. The proposed Additional Protocol for such a State, which is prepared by the IAEA Secretariat, follows the INFCIRC/540 (Corrected) standard model.

As in the case of a safeguards agreement, the text of an Additional Protocol can be finalized through correspondence. In practice however, the majority of States which have concluded Additional Protocols thus far have taken up the Director General's offer of consultations with the Secretariat on any issues about the Additional Protocol on which clarification is needed and in order to address, in more detail, points of particular interest or concern. Consultations -- formal and informal -- have taken place in Vienna with more than 50 countries. Additionally, the Secretariat has had a great deal of informal contact and discussion with States.

Over and above these contacts, the Secretariat has been taking all other appropriate opportunities to reiterate the significance of the Additional Protocol. For example, senior members of the Secretariat gave an in-depth presentation about the document in the margins of the Third NPT Preparatory Committee meeting in New York in May 1999. The Agency has also been seeking to promote

the Additional Protocol, as appropriate, in regional settings. In this context, a Safeguards Seminar for regional States and for parties to the South Pacific Nuclear-Free-Zone Treaty and to the South East Asian Nuclear-Weapon-Free-Zone was held in the Republic of Korea, from 18-20 October 1999.

Additionally, IAEA representatives have given presentations about the Additional Protocol at several venues. They included the Sixteenth Regular Session of the General Conference of the Organization for the Prohibition of Nuclear Weapons in Latin America and the Caribbean (OPANAL), the body set up under the Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean (Tlatelolco Treaty), and an International Seminar convened in Lima, Peru, in early December 1999.

In short, the Secretariat is leaving no stone unturned as it continues with its endeavours to formulate new ideas for promoting universal adherence to the Additional Protocol in the year 2000, an important objective.

## IMPLEMENTING THE ADDITIONAL PROTOCOL

Against this background, the Secretariat has also continued its work in connection with Additional Protocol implementation.

Examples of such work include the development of guidelines and simplified guidelines for submissions

by States pursuant to Articles 2 and 3 of the Additional Protocol; the development

of internal guidelines for complementary access; and the development of procedures and systems for information treatment.

Of particular importance in the first context, and with a view to universal adherence to the Protocol, was the preparation of simplified Article 2 and 3 reporting guidelines for States which will have a "Small Quantities Protocol" (SQP) to their respective comprehensive safeguards agreement. Although SQP States have little or no declared nuclear material and/or activities, it is important that they conclude Additional Protocols. In so doing, they will provide a basis for credible assurance of the absence of any undeclared nuclear material and activities and further demonstrate their commitment to strengthening the non-proliferation regime.

In States with an Additional Protocol in force, the Agency should eventually be able to implement an optimal combination of all safeguards measures available to it -- traditional nuclear material verification activities and strengthening measures -- so as to meet the Agency's safeguards objectives with maximum effectiveness and efficiency.

Towards this end, the most important area of current and future work is that of "integrating" the traditional activities with strengthening measures to develop the optimal combination of safeguards measures for a State as a whole.

The concept of "integrated safeguards" includes, *inter alia*, a "State-level" approach. Through it, the IAEA will seek to develop a comprehensive understanding of a State's nuclear activities and plans with a view to be able to

draw safeguards conclusions about the completeness and correctness of States' declarations. Where positive conclusions can be drawn about the absence of undeclared activities, it is reasonable to think in terms of relaxing certain traditional measures on less sensitive nuclear material, thereby reducing safeguards activities in the field.

## DEMONSTRATING COMMITMENTS

All of the IAEA's efforts to strengthen the safeguards system reflect wishes expressed by its Member States as voiced in its policy-making organs and reflected in relevant international fora. To meet the changed political expectations of safeguards in the wake of Iraq, the Agency has responded to calls and challenges to strengthen its safeguards system to equip it for the 21st century.

It is now for States to demonstrate support for the work which they themselves commissioned. In the final analysis, prospects for the Additional Protocol rest with States themselves. The 46 States with whom Additional Protocols have been approved by the IAEA Board have set a fine example. But progress has been slow.

It is now to be hoped that States which have not yet made any movement towards concluding an Additional Protocol will do so, without delay. It is also to be hoped that States which have signed Additional Protocols but which have not yet brought them into force will do so as soon as possible. □