# safeguards: five views

In the series of articles which follows five of the men who took part in the work of the Safeguards Committee (1970) discuss the achievement of the Committee and the atmosphere in which their negotiations were conducted; and throw a little personal light on the way in which a text broadly acceptable to all members of the Committee was drafted. Each of these articles represents only the personal opinion of its author. The Bulletin wishes to thank each of the contributors to the series which follows.

### BY WERNER UNGERER

#### Minister Plenipotentiary, Resident Representative of the Federal Republic of Germany to the International Organizations in Vienna

When the Safeguards Committee, set up by the Board of Governors in April 1970, started its work in June of last year a difficult task lay ahead. From a formal point of view the task seemed simple: to elaborate guidelines for negotiation for the Director General, to enable him to conclude the safeguards agreements provided for in Article III of the Non-Proliferation Treaty with the non-nuclear-weapon States party to the Treaty. From a technical point of view the task was rather complicated: the Agency's existing safeguards system is based mainly on the acceptance of safeguards by States receiving nuclear material or equipment by other States. These safeguards are limited to individual nuclear installations or given quantities of material. The safeguards envisaged in the NPT, however, are to apply to all source or special fissionable material in all peaceful nuclear activities of a non-nuclearweapon State, in accordance with the principle of safeguarding the flow of nuclear material at certain strategic points. Therefore it was not enough simply to include the provisions of the existing safeguards system in the safeguards agreements to be concluded under the NPT. Adaptations to NPT conditions were necessary.

The tasks of the Safeguards Committee proved to be difficult in the political sphere as well, as the negotiating positions varied greatly between the participating Member States. A number of States having ratified the Treaty and not engaged in any significant nuclear activities were interested in an early conclusion of the negotiations in order to keep in line with the deadlines set by the Treaty. They were joined by some other States that favoured the early application of safeguards as provided by the NPT and would have liked to apply the existing safeguards system.

On the other side there were a number of States with significant nuclear activities that had signed NPT, but made ratification subject to a satisfactory agreement on safeguards. This group of States was particularly concerned that the safeguards to be applied would be adapted to the conditions of NPT and that due consideration would be taken of progress made in the field of safeguards techniques.

But even within this group there were differences of opinion, as those States which were not members of any regional grouping — such as Euratom — wanted to be treated in the same way as members of this community.

The fourth group consisted of States which had not signed NPT and which were mainly interested in assuring that there would be no financial burden for themselves arising from the application of NPT safeguards. They were joined by a number of developing countries, parties to the NPT.

The solution of the problems with which the Safeguards Committee was confronted seemed as difficult as squaring a circle. The fact that the Committee in the course of 82 sessions could reach a generally acceptable solution has to be considered as a success. One need not wonder that the Board of Governors accepted the Committee's final report with satisfaction, and that representatives of the depositary powers of NPT qualified the work of the Committee as a "success story" and called the result "a milestone in the history of the IAEA". But not only the nuclear powers and main protagonists of the Treaty have cause to be content. The agreement reached in the Safeguards Committee contains advantages for developing countries as well: first their contributions towards the financing of safeguards will in practice be stabilized at the level of 1971, and secondly countries whose only nuclear activity is the production of uranium and thorium minerals will be exempt from safeguards due to the fixation of the starting point for safeguards within the nuclear fuel cycle.

Even the industrialized States, which are more affected by safeguards than others, have reasons for satisfaction. They feared initially that safeguards under NPT, while maintaining the distinction between States having nuclear weapons and non-nuclear-weapon States, would discriminate against the latter in the field of peaceful uses of nuclear energy and would thus impede their economic and technological development as well as their co-operation with other States. These fears were dispelled to a large extent by the provisions elaborated by the Safeguares Committee. They could be dispelled entirely as soon as nuclear material in peaceful activities is adequately safeguarded in nuclear weapon States as well — the United States and Great Britain have offered to submit their civil nuclear activities to safeguards — and when some experience on the practical application of safeguards by the IAEA is acquired. If the same "spirit of Vienna" in which the Safeguards Committee reached its conclusions guides this application the future might be viewed optimistically.

The agreement recommended by the Safeguards Committee can indeed be called a reasonable solution and thus it represents more than a political compromise. On the one hand it supplies the Agency with such possibilities of verification that it can efficiently carry out its task in the interest of non-proliferation of nuclear weapons, on the other hand it contains enough guarantees to avoid undue interference in nuclear industry or research. Furthermore, the agreement represents a considerable progress, legally as well as technically, in the establishment of international systems of control.

For States which by signing the NPT have accepted a limitation of their sovereignty and for which, in view of their nuclear activities, this limitation involves important practical consequences, those provisions of the agreement are of primary significance which give guarantees against undue interference by the safeguarding authority. Several provisions are of relevance in this connection: inspectors may normally check the nuclear installations concerned only at strategic points which will be defined jointly by the State and the IAEA; maximum limits have been set for the inspection effort, while the determination of the actual number, duration and intensity will depend upon the efficiency of national and *a fortiori* regional control systems, the interdependence between the State and other States, the form of nuclear material, the characteristics of the State's fuel cycle and technical developments in the field of safeguards. Additionally,

- the information supplied to the Agency is limited to the minimum absolutely necessary for safeguarding purposes;

- the IAEA is obliged to take all necessary steps in order to keep secret any confidential commercial or industrial information it might receive;

- the designation of the inspector to a certain State depends upon the concurrence of the State.

It is of political and financial importance that a national accounting and control system serves as a link between the IAEA and operators of nuclear plants, so that the IAEA has merely to verify the findings of the State's systems. This arrangement reduces the Agency's safeguards costs and at the same time avoids the arising of substantial differences in the application of safeguards between countries forming part of a regional safeguards system, and those which have not assumed such regional obligations. Thus, a serious request by several States has been taken into account. Even so, it will not be possible to utilize all the provisions of the model agreement as they are for the verification agreements to be concluded between Euratom, its members signatories to NPT and the IAEA. Adaptations will be necessary, because the Member States of Euratom have ceded important sovereign rights to the European Community, in particular with regard to safeguards.

The best way to come to a political evaluation of the results of the negotiations in the Safeguards Committee is to imagine what would have happened in the event that the negotiations had not succeeded. A failure would have impeded if not made impossible the ratification

of NPT in a number of countries. This would not have been without consequences on the relations between the United States and the Soviet Union on the one hand and the industrialized non-nuclear-weapon States on the other, as well as on the relations between several non-nuclearweapon States. If this could be avoided, it was due to the realistic negotiating of delegations, their readiness for compromise and their imagination in finding acceptable solutions, as well as to the good atmosphere prevailing in the Committee and to the active participation and thorough preparation by the Agency's Secretariat.

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#### Japan Atomic Power Company

As I am writing "un-official and semi-personal views" of my own on this subject, I have tried to reflect feelings of my friends in Japanese industry and the Government who have had much to do with the Committee. I am reasonably sure that what follows is not very far from the un-official views of many of them.

Looking back to the ten tedious months in the Boardroom, Governors' Lounge and various other places including embassies and hotel dining rooms, etc. in and out of the fair city of Vienna, what the Committee ended up with is almost incredible. The fact that we have finally produced a single document, almost consistent, somewhat reasonable, in which all participants' consensus could be somehow embodied — was not necessarily what all of us thought would be possible. There is no doubt that the wisdom of those who chaired the meetings, the patience of all the delegations, and the work of the Agency Secretariat are to be credited for this achievement. As one having had the pleasure and honour of attending a good deal of the Committee meetings, I would like to be among the first to appreciate the great contributions made by each one of these people.

How close to, or how far from "ideal safeguards" the Committee's final product happens to be can, of course, be looked at against one's notion of what the ideal system should be like. On the other hand, as far as I am aware, there has been no distinction in our mind between Japanese version of ideal or somebody else's ideal safeguards. Rising above political differences or expediencies, we have always regarded the Agency's safeguards task as the first step of what mankind has to accomplish toward the coming generations.

There is no question that behind NPT safeguards is the Non-Proliferation Treaty itself, and behind the Treaty is the entire history of the post-war arms control negotiations as well as the political, military and economic assessment of nuclear weapons and their potential capabilities. All the modern theories of strategic nuclear arms could also be brought into the picture. The Committee's deliberation, of course, could not be free from these backgrounds and their inherent limitations. However, one may regard the problem of international safeguards from a slightly different angle which, in the long run, may transcend in its significance the given terms of reference of the Safeguards Committee.

If one looks at nuclear energy as a problem in modern advanced technology, there are two aspects in which generalization is possible. Undoubtedly, advancing technology including the peaceful application of nuclear energy promises a great deal of benefit to mankind all over the world. This is apparent in the discussion of technical assistance to developing countries. At the same time, it is increasingly becoming clear that if left alone, technology can become so powerful that it will threaten human wellbeing. Problems of environmental pollution on the global scale are an example. The difficult yet absolutely necessary task of balancing between these two aspects of technology and providing for adequate safeguards is certainly an international issue. It can be achieved only through close cooperation among nations. With the opportunity offered through Article III of NPT, the nations can take up nuclear safeguards as their first joint efforts at such international control. The predicted enormous growth of nuclear industry throughout the world within the coming decades, and the grave implication of possible diversion, seems to justify such an attempt.

Considered in this light, and especially when we become aware that the nuclear materials safeguards require direct access at the level of industrial facilities, a number of things become almost axiomatic in order to arrive at a feasible system. The primary task of safeguards is to "detect and thereby deter" and is different from internationallysponsored spy activities. It should be designed not to catch an act of diversion red-handed but to be able to offer sufficient restraints so that nations will refrain from any idea of diversion. For this end, the safeguards should rely to a great extent on the "findings of national system of material control" and should not be conceived of as Big Brother's watch over everybody's shoulder. An effective and realistic method is through systems analysis by way of statistical evaluation of nuclear material flow based on a certain confidence level. The dispatch of inspectors is merely one of many aspects of verification activities and should not be regarded as if it were the only useful arm of safeguards. Occasional human observations may not even be the most reliable input into the evaluation system. The nuclear fuel cycle should be divided into a number of basic building blocks, or containment as the case may be, so that normal industrial activities and proprietary information within each block can remain undisturbed. The procedures and criteria of safeguards should be objective, scientific and uniformly applied. Above all, complete equality of treatment has to be assured.

It is most gratifying that through numerous sessions of the Safeguards Committee, most of the important principles have been accepted and found their places in the Committee's final report. There have been, however, a number of occasions when not everyone concerned shared the same understanding about what he has agreed to write into the document. Partly, this situation was due to shortage of time, because the international group of technical experts and the Agency Secretariat did not have time enough to work out agreed interpretation of some of the principles. Another part of the reason for the confusion came from the inevitable nature of large, international and multi-lateral negotiations. As a result the existing document is a mixture of statements of principle and descriptions of procedural details. One wonders, for example, in the paragraphs dealing with frequencies of inspection, whether more thorough discussion might not have produced somewhat different formulation, had we only had more time.

All this means that a great deal has been left to the level of subsidiary arrangements for further interpretation and implementation. How these tasks will be handled can easily change the outlook of the principles the Committee has adopted, and whether or not these important basic principles will be universally applied from real appreciation on the future of human progress. As an old expression has it, the work of the Committee "begins with the report and does not end with it."

## By PROFESSOR I.D.MOROKHOV

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The Soviet Union attaches great significance to the Treaty on the Non-Proliferation of Nuclear Weapons, which entered into force on 5 March 1970.

Referring to the Treaty, L.I. Brezhnev, General Secretary of the Central Committee of the Communist Party of the Soviet Union (CPSU) stated in his report at the 24th Congress of the CPSU: "Although not all States and not all Nuclear Powers have yet acceded to the Treaty, it does, to a certain extent, reduce the threat of nuclear war."

While restraining the nuclear arms race, the Treaty at the same time makes it possible for States parties to it to allocate considerable resources to the development of atomic science and technology for peaceful purposes and stimulates international co-operation in that field, accelerating thereby scientific and technical progress. This indeed determined the policy of the Soviet delegation to the Agency in the discussion of matters relating to the Treaty.

One of the basic components of the Treaty is strict international control over the observance of its provisions.

The Treaty names the Agency as the body competent to perform these supervisory functions, a fact which, apart from bearing witness to the high international recognition enjoyed by the Agency, imposes an enormous responsibility upon it.

The Safeguards Committee established in April 1970 has done much work on formulating the structure and content of the agreements between States and the Agency required under the Treaty and on adapting the Agency's existing safeguards system to the requirements of the Treaty. The Committee's work resulted in the drafting of a document of great significance containing recommendations as to the content of the safeguards agreements to be concluded with the Agency under the terms of the Treaty by the parties to it.

On the whole, the Committee's work can serve as a model of a businesslike and constructive approach to the solution of complex problems requiring consideration of the views of different countries, and evokes feelings of general satisfaction. The Committee has carried out a complex and painstaking operation embracing the technical as well as the legal and financial aspects of the safeguards agreements in connection with the Treaty. It was undoubtedly entirely due to the prevailing spirit of businesslike co-operation that the Committee was able to carry out its task. Its recommendations on the content of the agreements concerning the Agency's supervision of the nuclear activities of non-nuclear-weapon States will enable the Agency effectively to discharge its functions under the Treaty, on the basis of a judicious combination of national safeguards systems and independent verifications by the Agency. The procedures for the conduct of inspections, designation of inspectors and settlement of disputes, which the Committee has worked out, take full account of the sovereign rights of States.

The Committee's recommendations ensure protection of the industrial and commercial interests of States by providing for communication to the Agency of only the minimum of data on the nuclear activities of a State necessary for safeguards purposes and by requiring the Agency to treat as strictly confidential such commercial and industrial information of importance to States as may come into its possession in connection with safeguards.

The Committee did a great deal of work on the solution of the problem of financing the Agency's safeguards activities. It constantly strove to reduce the cost of safeguards to a minimum, not however to the detriment of effective control. As a result, safeguards expenditure will not be excessively high. It is to the great credit of the Committee that it was able to work out a formula, acceptable to the majority, providing for distribution of safeguards expenditure among the Members of the Agency on the basis of its Regular Budget, and providing also for non-Member States to reimburse safeguards expenditures to the Agency.

The high appreciation of the Committee's work is borne out by the fact that at present a large number of States have expressed their willingness to start negotiations with the Agency with a view to concluding safeguards agreements on the basis of the Committee's recommendations. The agreement between Finland and the Agency and that between Austria and the Agency have 'already been initialled. The Committee's recommendations make it quite possible for all parties to the Treaty, within the prescribed time limit, to conduct negotiations with the Agency and conclude with it the appropriate safeguards agreements.

Now that the Agency has at its disposal recommendations on safeguards agreements approved by its Board of Governors, we are justified in hoping that States which have not yet signed or ratified the Treaty will do so in the near future. We should like to believe that countries will not keep aloof from the general efforts at achieving an international agreement of such importance for the fate of the world as the Treaty on the Non-Proliferation of Nuclear Weapons, but will ratify it and proceed to conclude safeguards agreements with the Agency within the time limit laid down therein.

### **4**<sub>BY PETER KELLY</sub>

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The political importance of the IAEA Safeguards Committee is a matter on which others, more eloquent than I, will wish to dwell in other contexts. Writing now for the Agency Bulletin there is only one point I should like to bring out.

Any system of verification or control is very difficult to bring about on a world-wide basis. Controlled disarmament, if it is ever to be achieved, will need many years yet of arduous negotiation, and there will be many set-backs on the way. I believe, however, that the work of the IAEA Safeguards Committee and its elaboration on a consensus basis of a model safeguards agreement represents a milestone along the road.

In devising the provisions of the model safeguards agreement, international issues of extreme political sensitivity had to be solved; delicate questions involving national sovereignty had to be adjusted; the threat to commercial interests had to be faced, and satisfactory precautions worked out to protect such interests. The Committee coped with all these difficulties; and very few meetings went by without carrying the work a little further forward. By the end of what was really quite a short period we had elaborated a complex and comprehensive series of provisions — a code of control more developed and more ambitious than had ever before been agreed between nations.

Of course, it remains to be seen whether the model agreement will be adopted for general use, although some countries are already accepting it. It remains to be seen whether this pattern can be copied, with suitable adaptation, in other areas of disarmament. However, the Safeguards Committee has pointed the way. It has achieved something never previously achieved in human history. With God's help, and such wisdom as it can command, Mankind should go forward along the road. Unless we do; unless we can collaborate to restrain the new technical powers now at our command, and to channel them to productive ends. the future for our small planet is bleak indeed.

This said, I should prefer to dwell on the human aspects of the Safe-guards Committee.

Over the nine long months that we sat in the Board room racking our brains over such seemingly insoluble problems as financing or the frequency of inspections, we got to know one another pretty well. The instructions and general attitudes of delegations became clear; and the virtues and foibles of the delegates. Nearly 50 delegations were present, and it proved that between them there were wide differences as to political line of approach. With the differences that existed between us at the beginning added to differences of personality, it would have been easy for the Safeguards Committee to fall apart or to end in a welter of recriminations.

In fact it did not so. Whatever the reason (and perhaps the temperate air of Vienna had something to do with it) events took another course. Quite early in our work a moderate, compromising spirit displayed itself in the Committee. Then the atmosphere became friendly, at times even humorous. Instead of confronting opposed views in the Board room, delegates took to talking them over in the lounge, or in one or two nearby restaurants (though I mustn't use the Bulletin for advertising). In such environments, even the most intractable looking problems proved soluble: even the prickliest-looking delegate proved to have a human side. Informal consultation came to count for more and more in our work; and when we got back to the Board room even the intractable problems had been — one daren't say "fixed", but, perhaps, "adjusted".

Once a good atmosphere was established, it never really got spoilt (though, maybe, once or twice, it was under strain). And then there was the realization that we were all working hard together even if, at times, on different lines. Certainly the United Kingdom delegation worked hard; but I doubt if we could claim to have worked hardest. I was considerably shaken once when another delegation handed us a draft at the bottom of which, tucked away in a corner, was "MK:0810". I took this to be the initials of the originator and the time he had completed the work. The UK was really under strain the next morning to enable us to hand over a counter-draft, at the bottom of which was "PK:0635".

However, I doubt that any delegation exerted as much effort as the Secretariat. How often, for example, in the Committee did a delegate who was advancing a good proposal, or a silly one, or who was simply perplexed as to where to turn next, call on the Inspector General to give his advice? Always one could be sure of getting an informed, reasonable, and somehow soothing reply. All this — as well as the other services of the Secretariat — was done only at the cost of a great deal of unseen, but thorough preparatory work.

It was the atmosphere, then, and the consciousness of collective endeavour that enabled the Committee to do its work and which made the Committee, despite all its arduousness, so enjoyable an experience for the participants. Speaking for myself, although there were quite a few participants in the Committee with whom I differed, at one time or another, during the course of the Committee's work, there is not one I should not be glad to meet again in some other negotiating forum. There are not a few on whom I now look as friends.

My own experience, I believe, is not exceptional. Though we were all glad when the Safeguards Committee ended its hard labours and we adjourned for the last time to the lounge to sing the Safeguards' Song with its resounding chorus "We Agree!", there must have been many who, like myself, felt a tug at the heartstrings at the thought that we should no longer be working together and sharing Committee jokes. It is to be hoped, in any case, that many of the participants of the Safeguards Committee and, above all, the spirit will be seen again in the future work of the Agency.

### 5 BY MYRON B. KRATZER

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On April 20, 1971, the IAEA Board of Governors completed action on one of the most important tasks ever entrusted to it - the formulation of the principles which would guide the Agency in concluding safeguards agreements with parties to the NPT. To accomplish this task, the Board had previously decided, on April 1 and 2, 1970, to establish a Committee, open to all Member States, to advise it on this and related matters. This Committee met intensively over many months and issued three reports, covering all aspects of the proposed safeguards agreement, the final report dealing with the character of the financial clause to be incorporated in the agreement. On the average, 40 to 50 Member States were in attendance at any one time. With the Board's approval of the Third Report on 20 April 1971 the IAEA was placed in a position to negotiate and conclude all aspects of the necessary safeguards agreements with parties to the Treaty. What has been achieved is indeed noteworthy, since through tireless effort and a spirit of compromise, countries were able to fashion the detailed outlines of a safeguards agreement that promises to be both effective and at the same time broadly acceptable. With the conclusion of the work of the Safeguards Committee, in which so many States constructively participated, we have reason to be more optimistic than ever that the NPT will be widely adhered to and effectively implemented.

As one who had the opportunity to participate in the work of the Safeguards Committee, I should like to characterize some of the major features of the proposed safeguards arrangement that has been developed and, in so doing, highlight what I regard to be the Committee's major accomplishments.

First, the proposed arrangements which have been developed should provide the Agency with an effective means for detecting the diversion of nuclear materials or to identify unusual circumstances that warrant further investigation. It would be presumptuous to suggest that the arrangements are completely foolproof. No safeguards system has yet been devised that offers a 100 per cent assurance of the detection of diversion and to my knowledge no other foolproof system of detecting much less preventing — wrongdoing by man has ever been developed. Nevertheless, the work of the Committee has provided a sound basis for the Agency, in close co-operation with the States concerned, to develop and implement effective safeguards arrangements. I have every confidence that the Agency, which has had long experience in the safeguards field, will meet the challenge of its new responsibilities under the NPT. In the process of formulating its recommendations, the Safeguards Committee re-affirmed the important principle that the efficacy of any scheme of international safeguards depends on a basic principle, namely, the right of the IAEA Inspectorate to verify independently the data reported to it. The Committee's report thus recognizes that, in the final analysis, a judgement that there has been no diversion must rest on objective evidence and not on information made available by the inspected party itself. At the same time, the Committee took a significant action in recognizing and assuring that national systems of accounting for and controlling nuclear materials have an important role in the verification process. The United States has consistently supported this concept which also figured prominently in the negotiation of Article III of the NPT itself.

Specifically, the Committee recognized that it would clearly be impractical for the Agency itself to undertake the basic operation of a materials accountability system. This would involve far more resources than the Agency has available as well as more intrusion into plant operations than would be desirable. Thus, it was concluded that independent verification will depend heavily on the authentication of findings and data developed by national systems. The incorporation of both these principles — - that is, the fullest possible use of national systems of accounting and control, and the requirement that their findings be verified by independent measures — is, in my view, one of the most important features of the document which has been prepared.

Another important result of the Committee's work was to provide the State being inspected with additional assurances that its legitimate commercial interests will be protected. The provisions which have been developed enjoin the Agency to exercise extreme care in the protection of commercial secrets, to avoid undue interference with the nation's peaceful nuclear activities and to conduct safeguards in a manner consistent with the economy and safety of the activities concerned. The proposed arrangements also visualize that the Agency's verification procedures will be concentrated most intensely on nuclear materials of greatest strategic significance, namely, highly enriched uranium and plutonium. While these principles have long been included in the Agency's safeguards system their reiteration provides an important assurance to national authorities that safeguards will be applied in a reasonable manner.

In the course of its work, the Committee specifically endorsed the concept of "strategic points", which was also given explicit recognition in the Non-Proliferation Treaty itself. Reduced to simple terms, this concept means that Agency inspectors normally should confine their access to locations selected by the Agency in advance, where nuclear material can be most easily measured, contained or observed, rather than to every portion of a plant. In this manner the opportunity of inspectors to obtain information of commercial value will be reduced and interference with plant operations will be minimized.

On the subject of inspections, which are vital to the entire process of independent verification, it is particularly encouraging that it was possible to devise a scheme that was broadly acceptable while preserving the basic technical effectiveness of the system. The formula that was developed differs significantly from the current IAEA safeguards document since there was a widespread desire on the part of Committee members to establish in a more specific manner both the pattern and duration of routine inspections.

In the approach adopted by the Committee, a maximum quantity of inspection effort, expressed in man-days or man-years of inspection time, is specified for each of three classes of facilities. These are:

1. Reactors and sealed storage facilities.

2. Other facilities handling plutonium or uranium enriched to greater than 5 per cent uranium-235. This category includes chemical reprocessing plants and conversion and fabrication plants handling highly enriched uranium or plutonium.

3. All other facilities, in which material of lesser enrichment would be involved. This category includes conversion and fabrication facilities involving only natural or slightly enriched uranium.

The amount of normal effort permitted ranges under this new approach from one inspection per year for very modest facilities, such as research reactors, to several man-years, permitting continuous access, in the case of commercial-size reprocessing plants or fuel fabrication plants handling plutonium or uranium of more than 5 per cent enrichment. In each case the inspection effort for each facility may be combined for all facilities in each category. The arrangements also permit the Agency to employ a part of its routine inspection effort on an unannounced basis and special inspections are permitted in order to verify the information contained in special reports or if the Agency concludes that the information obtained from routine inspections is insufficient for it to fulfil its responsibilities.

To permit the effective application of safeguards within these carefully defined limitations, it will be essential that the Agency make efficient use of its resources. The development of improved inspection procedures that will reduce the actual need for personal inspection will also contribute to this objective. I refer here, specially, to the use of such devices as seals and tamper-proof instruments.

Finally, in the difficult area of finance, the Committee was able to achieve a satisfactory formulation that won the support of nearly all the members, large and small, parties and non-parties to the NPT alike. Here again, the members adopted an approach that recognizes that safeguards are beneficial to all Member States. At the same time, the formulation which was approved appropriately assures the IAEA Member States with the least means that they will have to contribute not more than a fixed and modest fraction of their assessments to future safeguards costs.

Thus, encouraging progress has been made in Vienna. Building on this solid foundation we can anticipate that the Agency now will be able to conclude the necessary agreements with parties to the NPT promptly and that ratification of the NPT by many additional nations will follow.

From June 1970 to March 1971 the Safeguards Committee's main task was to make recommendations about the "structure and content" of agreements to be concluded between the Agency and the non-nuclear-weapon States party to the NPT. These recommendations, which the Board of Governors has since requested the Director General to use as the basis for negotiation, are published as INFCIRC/153 and issued as a supplement to this number of the Bulletin.