The Nuclear Suppliers Group

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Nuclear Export Control: The Early Stages

The question of nuclear export control arose as early as the exports themselves. Suppliers first sought safeguards and assurances of the peaceful use of exported items in the 1950s. They sought these assurances through the implementation of bilateral agreements. At that time, the application of safeguards was entrusted to the International Atomic Energy Agency after its creation in 1957, and to Euratom, which safeguarded exports to its member states.

The parties who signed the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) in 1968 agreed "... not to provide (a) source or special fissionable material or (b) equipment or material especially designed or prepared for the processing, use, or production of special fissionable material, to any non-nuclear weapon State for peaceful purposes, unless the source or special fissionable material shall be subject to the safeguards required by this Article [III.2]."

Neither the source and special fissionable material nor the especially designed or prepared equipment and material for the processing, use or production of the latter was defined in the Non-Proliferation Treaty. This lack of definition gave rise to differing interpretations as to what constituted restricted equipment and material. As a result, some parties to the NPT established the Zangger Committee (named after its first chairman, Professor Claude Zangger of Switzerland) in 1971 to clarify these matters. The Committee was based in Vienna.

In 1974 the Committee confirmed the definition of source and fissionable material contained in the Statute of the IAEA and produced a list (called the Trigger List) of material and equipment for its processing, use, or production. Perhaps more important was the agreement reached on minimal requirements that (on the basis of Article III.2 of the NPT) should govern the exports of these items to non-nuclear weapon states not party to the NPT. These requirements obligated nuclear suppliers:

a) to obtain the recipient's assurance excluding uses of the exported items for a nuclear explosion;

b) to subject those items, as well as the material on the Trigger List produced through their use, to IAEA safeguards;

c) to ensure that Trigger List items are not re-exported to a third party unless the third party recipient meets the conditions of a) and b).

These requirements and the Trigger List were included in two memoranda of the Zangger Committee and published by the IAEA in September 1974 in its document INFCIRC/209. The memoranda constituted the first major agreement which set out rules for nuclear exports.

The Initiation of the NSG: 1975-1977

The explosion of a nuclear device by India in May 1974 (some two months before the Zangger Committee memoranda were agreed upon), as well as attempts of some other states to create a full nuclear fuel cycle, increased concern about nuclear proliferation. It caused the major suppliers to focus closer scrutiny on the management of nuclear exports. A new suppliers group was then established and became known first, unofficially, as "the London Club" (since it met from 1975 to 1977 in London) and later — more officially and more adequately — as the Nuclear Suppliers Group (NSG). The inclusion of France in the NSG had special significance, because France was not a party to the NPT and therefore was not a member of the Zangger Committee. The establishment of the NSG brought France, a major supplier, into the multi-lateral discussions with the other major suppliers.

Early in 1976, the original seven members (the United

States, the Soviet Union, the United Kingdom, France, the Federal Republic of Germany, Japan, and Canada) agreed on the first version of "Guidelines on Nuclear Transfers." This version was then further discussed with eight new (Belgium, Czechoslovakia, members the German Democratic Republic, Italy, the Netherlands, Poland, Sweden, and Switzerland) that joined the group during 1976/1977. The Guidelines were finally accepted by all fifteen members of the Group in September 1977 and transmitted to the IAEA Director General in January 1978 to be published the next month as the IAEA's document INFCIRC/254.

The NSG guidelines incorporated the Zangger Trigger List, expanding it only slightly, with the notable addition of some heavy water production items. They also included the requirements for a recipient's assurances of non-explosive use, IAEA safeguards, and control on re-transfer. The major difference between the Zangger Committee memoranda and the new NSG guidelines was that the latter went beyond the context of the NPT (it concerned nuclear transfers to any non-nuclear weapon State) and made the conditions for nuclear exports more stringent.

The NSG conditions were to be applied to the transfer of nuclear facilities or the technology (including component parts) supporting them. These facilities included reprocessing, enrichment, and heavy water production plants. The NSG guidelines provided for special controls on sensitive exports, calling for restraint in the transfer of sensitive facilities, technology, and weapons-usable materials. The guidelines also required physical protection for nuclear materials and facilities in order to prevent their unauthorized use and handling. Thus, the Guidelines on Nuclear Transfers established new, more exacting and more effective standards in nuclear exports control.

The guidelines served as a set of principles and rules. It was left up to each adhering state to act in accordance with them and to ensure their implementation through national legislation and enforcement mechanisms. This, of course, created the possibility that certain differences would arise in interpreting and applying the guidelines nationally. That is why the guidelines also contained provisions which called upon the adhering suppliers to consult on matters connected with their implementation. The NSG was to meet to discuss specific cases and violations of supplier-recipient understandings. These consultations were to be conducted through regular or diplomatic channels.

The Guidelines on Nuclear Transfer provided for a

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consultation mechanism, a necessary feature of an international organization. For many years, however, this mechanism was not used, except for sporadic bilateral contacts on specific sensitive cases between some suppliers. In fact, following the adoption of the guidelines in the autumn of 1977, the Nuclear Suppliers Group did not meet for more than thirteen years. Consequently, no change was made in either the guidelines or the NSG Trigger List, even though there was an evident need to update and supplement the latter. Indeed, the Zangger Committee systematically updated its Trigger List. During these years that List was refined several times to include equipment for uranium enrichment by gas centrifuge methods and gaseous diffusion, and for reprocessing. The modified, consolidated Zangger Committee Trigger List was published by the IAEA in late 1990 as INFCIRC/209/Rev 1 and was considerably more detailed than the NSG list.

Relative Inactivity: 1978-1990

There is no single clear reason why the NSG was relatively inactive during the long period from 1978 to 1990. (The Group was not completely inactive because, despite the fact that it did not meet, the guidelines were being implemented on a national basis throughout that period of time.) During the period in question twelve more states, from both the West and the East, subscribed to the guidelines.¹ It should be noted that since its origin, the Nuclear Suppliers Group has assembled states from both sides of the East-West dividing line with the common objective of nonproliferation. It has never been an organization directed against either side. Also, during that long period attempts were made by countries from the West as well as from the East to reactivate the Group, but these efforts were unsuccessful. The Cold War therefore can hardly be held responsible for the NSG's inactivity during the 1980s.

In my opinion, the major cause of the group's inactivity was the unwillingness of some NSG suppliers to move beyond the conditions for nuclear exports established in 1977. The motive behind this unwillingness was commercial interest. An example to support this view is the case of full-scope safeguards. Discussion on the extent of the safeguards that recipients should be required to agree to as a condition of nuclear supplies dated back to the early NSG period before the acceptance of the guidelines. There was no agreement on this point then, and later attempts in the mid-1980s by some countries to begin a discussion on making full-scope safeguards a condition of export failed as well. Some suppliers unilaterally adopted the requirement of full-scope safeguards: Canada introduced this requirement in 1976; Australia and Sweden in 1977; the US, Poland, and Czechoslovakia in 1978; Japan in 1989; and Germany in 1990.

The End of the Cold War: Stimulus for Activation

While the Cold War itself never constituted a major obstruction to the operation of the Nuclear Suppliers Group, the profound qualitative change brought about in the relations between Western and Eastern NSG member states at the end of the Cold War could not but positively influence the Group's activities. An important positive development was that following the political and socioeconomic transformations in Russia and in all of the other Central and Eastern European members of the Group, those countries made a full reaffirmation of their nonproliferation commitments. Having participated both in the meetings of the Group in the seventies and then in the nineties, I was able to witness a radical change in the atmosphere. There had been a definite "stiffness" and rather frigid formality in London. That stiffness has been replaced by a real spirit of constructive cooperation, openness, and reinforced sense of common purpose at recent meetings in The Hague, Warsaw, and Lucerne.

During the Cold War, the East-West confrontation dominated international security concerns. With the end of the Cold War, other problems, notably regional ones that involved nuclear proliferation risks, came to the fore. It was realized that these problems could better be assessed and jointly approached in the framework of NSG.

The Gulf War and the Dual-Use Gap

If the fading away of the East-West confrontation made it possible to focus more attention on the growing risk of nuclear proliferation, particularly in the regional context, the Gulf War and its aftermath dramatized the awareness of this risk. There were lessons to be drawn by the NSG members. Many of them had exported vast amounts of materials, equipment, and technology (some of which were not directly nuclear-related) to Iraq which were used for its formidable nuclear weapons program.

The practices of some states bent on acquiring nuclear weapon capability, aimed at circumventing the NSG's regime of nuclear export control and eroding its effectiveness, had been known for some time. Would-be

proliferators tried to evade controls by obtaining dual-use technology for their unsafeguarded nuclear programs or for the development of weapons. This was being done in a number of ways, including exploiting suppliers' diverse national export regulations on dual-use items, concealing the true end-use, transshipment through third countries, and even clandestine procurement. There was evidently a growing gap in the NSG nuclear export arrangements. Increasingly, the suppliers realized this, and towards the end of 1990 a common view on the need to tighten up export controls of dual-use commodities seemed to be forming. It was the Gulf War, however, that dramatically revealed the extent of the "dual-use gap" in nuclear export controls. The war made the suppliers realize the potential dangers involved and the urgent need for action to prevent them. This, in my view, was a major factor in reviving the Nuclear Suppliers Group.

The Revival of the NSG and Dual-Use Export Controls

Indeed, one may speak about the revival of the NSG at its meeting in the Hague in March, 1991 — more than thirteen years since it had last gathered in London. All of the 26 states adhering to the Guidelines on Nuclear Transfers (INFCIRC/254) took part in that meeting, chaired by Mr. Jan Hoekema of the Netherlands. The meeting brought about the rebirth of the NSG, infused it with a dynamic new spirit of cooperation, and set an agenda of pressing export control issues. All decisions were taken by consensus and reflected a unified will of action and shared sense of purpose. The most important step taken was certainly the decision to elaborate a joint NSG arrangement, or regime, to control exports of nuclear related dual-use materials, equipment, and technology. A special working group was set up to fulfill this task.

Another decision called for a swift (and long overdue) broadening of the NSG control list so as to bring it into conformity with the more detailed and more up to date Zangger Committee list. The importance of enlarging the Group by adding the so-called new supplier states was also recognized, and the mandate was given to the host and chair of the meeting, the Netherlands, to approach a number of those states on behalf of the NSG. The Hague meeting also set into motion the process of review and consultation (largely a dead letter of the Guidelines so far) and exchange of information. The Hague decisions established the basis for the very substantial progress made by the Group in the following two years. The most important achievement was an arrangement to control the exports of nuclear-related dual-use materials, equipment, and technology in order to prevent their use in unsafeguarded nuclear programs and nuclear explosives programs. This arrangement was formally adopted by the 27 NSG members² at the plenary meeting in Warsaw (31 March — 3 April, 1992), after a year of intensive negotiations, held in The Hague, Brussels, Annapolis, and Interlaken.

This arrangement consists of a set of guidelines for transfers of dual-use items and a list of some 65 items, including equipment, materials, and technology. The basic principle of the guidelines obligates suppliers not to transfer dual-use items on the list if: 1) they are to be used in nuclear explosive activities or in an unsafeguarded nuclear fuel cycle; 2) there is unacceptable risk of their diversion to such activities; or 3) their transfer would be contrary to the objective of averting the proliferation of nuclear weapons. Other important provisions discuss the factors for assessing recipients' nonproliferation standing and conditions on transfers and retransfers (i.e., end-use statements or assurances of non-use for explosive or unsafeguarded nuclear fuel cycle activity). A third essential element of the dual-use arrangement is a Memorandum of Understanding which specifies some matters of implementation.

Both the guidelines and the list were sent to the Director General of the IAEA by NSG member-states. At their request, these were published by the Agency in July, 1992 as INFCIRC/254/REV 1/ Part 2. Composed of two parts, the revised INFCIRC/254 now describes the regime for export control of both nuclear and nuclear related dual-use commodities and lists those commodities. Such a comprehensive arrangement results in a more effective and coordinated international approach to controlling all exports for nuclear uses.

Changes to the Nuclear Transfer Regime

The new regime became effective on January 1, 1993. At the same time as it was being established, steps were being taken to update and tighten up the old system for controlling nuclear transfers. The NSG meeting in Warsaw adopted a declaration requiring suppliers to demand full-scope safeguards for all non-nuclear weapons states, before new, significant nuclear exports may be transferred to these states. The declaration, published in May, 1992 as IAEA INFCIRC/405, was then reflected in an amendment to the NSG guidelines for nuclear transfers and endorsed at the

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last NSG plenary meeting in Lucerne (30.03-1.04.1993). The amended version of the guidelines was published in July, 1993 as IAEA INFCIRC 254/Rev 1/Part 1/Mod 1.

Both in Warsaw and in Lucerne, the NSG called on all nuclear suppliers to adopt the full-scope safeguards policy requirement. In Lucerne the NSG also promised to counteract indirect supplies through third countries. Thus, the long debate — within the NSG and outside it — about the full-scope safeguards has been successfully resolved, resulting in a significant tightening up of the nuclear export control regime.

Not only was the NSG "nuclear" Trigger List expanded to harmonize it with the Zangger Committee list (its amended version was transmitted to IAEA and published by it in July, 1992 as INFCIRC/254/Rev I/Part 1), but work on further updating the list was undertaken by a special technical working group. The working group has now reached agreement on such newly proposed clarifications and entries, such as those concerning various enrichment plants (aerodynamic, chemical and ion exchange, laser-based, plasma separation, electromagnetic), uranium conversion, or coolant pumps as well as definition of sensitive technologies.

The North-South Dynamic and the New Nuclear Suppliers

The North-South dynamic has always been present in NSG activities. As mentioned above, the Group's membership and export control arrangements from the very beginning transcended the East-West dividing line, and the would-be proliferators (with the exception of Israel and South Africa) were traditionally situated in "the South." Hence, of necessity, the NSG export control measures were primarily aimed at those parts of the world. This, in turn, conditioned the attitude of some Third World countries toward the Group. They characterized the London "Club" as a cartel and accused it of discriminatory political and commercial motives and practices. That reputation stayed with NSG for a long time and to a considerable extent still persists in many quarters.

Another charge directed at the NSG concerned the "unnecessary" extension of the obligations ensuing from the NPT and the IAEA safeguards system. Those making this charge tended to overlook the fact that the NSG's activities were primarily motivated by the objective of preventing nuclear proliferation and intended to facilitate nuclear trade by harmonizing nonproliferation conditions for nuclear exports so as that no supplier would have an unfair advantage.

The 1980s brought new developments in the field of nuclear trade. The so-called new suppliers of nuclear material, equipment, and technology emerged from outside the traditional West-East perimeter. While some of them were not parties to the NPT and held a critical view of the NSG, it was interesting to note that as they faced the realities of nuclear exports, most of them demonstrated a sense of responsibility. These new suppliers — Argentina, Brazil, China, and South Korea, for example — voiced support for peaceful uses of nuclear energy and principles of nonproliferation.

The emergence of new supplier states confronted the NSG with the crucial problem of attracting them to and ultimately integrating them into the Group. The problem is crucial because it has a direct bearing on the effectiveness of export control and the nonproliferation regime. It is difficult because of the need to reconcile high export control standards with an enlargement process.

The NSG, as already mentioned, faced this problem squarely beginning at its first post-Cold War meeting in The Hague. That meeting as well as the two subsequent ones in Warsaw (1992) and Lucerne (1993) invited new supplier countries to adhere to the NSG Guidelines in the hope that this would significantly enhance the nonproliferation regime. Soon after The Hague meeting, a dialogue aimed at attracting new suppliers to the NSG was started by the Netherlands on behalf of the Group, with a number of states considered to be important and most likely to adhere to the guidelines. The dialogue was continued by the NSG's Polish chairman following the Warsaw meeting and has now been entrusted in Lucerne to the new Swiss Chairman, Professor Alec Baer, who will be assisted by some member states. Correspondingly, several NSG members have made individual contacts with these states. Positive results of these discussions have already been seen. On December 2, 1992, Argentina formally adhered to both the nuclear and dual-use NSG Guidelines. In recognition of this fact, as well as its general non-proliferation stand and policies, Argentina was invited to participate in the NSG plenary meeting at Lucerne as an observer. Argentine membership in the Group is now imminent. Prospects also seem to be reasonably good for Brazil and South Korea to join the NSG, and even better for South Africa.

In the case of China, a somewhat more long-term view of its

participation in the Group must be taken. One should keep in mind China's general support for the nonproliferation regime, its accession to the NPT, and its willingness to engage in a dialogue with the NSG.

All in all, the prospects are good for the NSG. The prospects are also good for the scope of its export control regime to extend beyond the North-South dividing line. Such a development would have great political as well as practical effect, although the problem of certain "Southern" suppliers will certainly remain for some time.

The Eastern Problem: The Newly Independent States

The problem of new suppliers is not confined to the South. Despite the unprecedented positive change in East-West relations, an "Eastern" problem (or, as some call it, challenge) has arisen for the NSG. The same profound transformations in the Eastern countries that brought about this positive change also resulted in the emergence of newly independent states on the territory of the former Soviet Union, some of them with nuclear activities and export capabilities. These states, however, were no longer bound by NSG commitments nor by any other nuclear nonproliferation agreements or arrangements. The Nuclear Suppliers Group could not ignore this situation, and it became a major topic of the Group's 1992 plenary meeting in Warsaw. The meeting launched a special appeal to the newly independent states to accede to the NPT as nonnuclear weapon states, to adopt IAEA full-scope safeguards, and to implement effective nuclear export controls through adherence to NSG guidelines. The presence of Ukraine as an observer at the meeting, which was welcomed by participants, seemed to indicate a reciprocal interest in the Group's activities by that country, as did the message sent to the meeting by Kazakhstan's Deputy Prime Minister.

Having considered the matter in some detail, the meeting's participants outlined a policy to be followed by NSG members with regard to the non-member states of the CIS. Its main elements are:

a. consideration of those states as non-nuclear weapon states in the application of the NSG guidelines on nuclear transfers as well as on transfers of dual-use items;

b. agreement on a short, transitional period for continuation of supplies to those states pending their acceptance of the necessary NSG requirements (notably full-scope safeguards), primarily for safety reasons;

c. efforts to be exerted to make those states adopt nonnuclear weapon state status and to integrate them in the nonproliferation regime and the NSG in particular.

With regard to the last point, a special mandate was given to the NSG Chairman to actively approach the States in (particularly those with relevant nuclear question capabilities) and encourage their accession to the Group. The effect of these contacts is not yet evident. While a general interest in and intention of joining the NSG has been expressed by countries like Kazakhstan, Belarus,³ and Ukraine, the latter at some point coming very close to applying for membership, several factors have prevented this from happening. In the case of Ukraine, one factor has been the well-known wider internal political discussion on the country's nuclear problems and status, which has also influenced the position of Kazakhstan. In all of these states (as well as Lithuania), there have been differences of opinion about the importance of the NSG's role and activities between the nuclear sector and the decision making politicians, difficulties in accepting IAEA safeguards (Lithuania being a positive exception here), and the lack of adequate legislation and an adequate system for controlling trade in nuclear-related goods.

So the problem remains, its significance and urgency having been recognized again at this year's NSG plenary meeting in Lucerne; the call for the newly independent states to accede to the NPT, adopt full-scope safeguards, and carry out effective nuclear export controls was renewed, and efforts aimed at attracting them to the NSG will continue. The problem clearly is of major importance not only for the NSG but for the future of the nonproliferation regime as well. Though treated here as an "eastern" problem, it has evident ramifications in the "South," as a number of CIS States actually belong in many ways to that half on the world.

The NSG, the IAEA, and the Zangger Committee

Although the Nuclear Suppliers Group is a separate, "independent" body not formally based on the NPT, it constitutes an essential part of the nuclear nonproliferation regime. The fact that it is not formally bound by the NPT has made it possible for states not party to that Treaty to adhere to NSG guidelines and, in addition, has allowed the NSG to establish export control norms that are more strict and cover a broader array of items than those based on the NPT.

The NSG's nuclear nonproliferation objective naturally brings it into relationship with two other international

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organizations operating in this field, the International Atomic Energy Agency and the Zangger Committee.

The IAEA has provided the principal formal channel for the NSG to communicate its export control arrangements to the outside world. Both the Guidelines on Nuclear Transfers of 1978, later amendments to them, and guidelines on the transfers of nuclear-related dual-use items of 1992 have been published as IAEA documents. This has been done, each time, at the request of every individual NSG member state and not the Group as an organization. Subsequent adherence of new states to the guidelines as well as individual governments' reservations or communications of special conditions in implementing the guidelines have also been reported in the same way: the Director General of IAEA is informed and the communication is then published under the same INFCIRC number.

Another connection with the IAEA has been the NSG requirement that Agency safeguards be made a condition of nuclear exports. The initial requirement was that safeguards be placed on the exported items and the material produced through their use; later, in 1992, the requirement was extended, with safeguards required on all nuclear activity in the recipient States. Here again, there has been no direct official communication between NSG and the Agency; it is up to every supplier to ensure that all recipients fulfill this requirement. However, the IAEA safeguards system was repeatedly discussed at NSG meetings, its importance being reaffirmed as a crucial element for ensuring the peaceful uses of nuclear energy. At the 1992 plenary meeting in Warsaw the NSG, in a special declaration, supported the effort within the IAEA to establish a system of enhanced reporting on the transfers of nuclear material, relevant equipment, and certain non-nuclear material as a way to strengthen the safeguards.

A new link between the activities of the NSG and the IAEA was created in February 1993 when the latter's Board of Governors approved the enhanced reporting system, now called Universal Reporting, to encompass (albeit on a voluntary basis) both the information on the above mentioned transfers and possibly on the production of nuclear materials. The items whose transfer is to be reported are those on the NSG Trigger List, contained in INFCIRC/254/Rev 1/Part 1.

There has certainly been cooperation between the NSG and the Zangger Committee, although it has not been formal cooperation. The link has been facilitated by increasingly similar membership of the two bodies; in fact, the membership has recently become identical. The Chairman and the Secretary of the Zangger Committee have participated regularly in NSG meetings since 1991, although they have done so as delegates of their respective countries and not as officials of the Committee.

The similarity in the tasks of these two suppliers organizations and their identical membership have led to speculation about the necessity of maintaining two separate groups. Suggestions have even arisen about discontinuing one of the groups or combining the two. However, after some discussion — mostly in the Zangger Committee — it has been agreed to maintain both groups separately, at least for some time. An important reason for doing so is to keep an option for new suppliers to join either organization.

The NSG has no formal connections with the MTCR or the Australia Group and there seems to be no pressing need for them at present. It is true that all Western members of the NSG belong to one or both of these other nonproliferation groups. The organizational and procedural set-up of those groups have often been compared to NSG arrangements or cited as a possible example for the NSG to follow.

The Dual-Use Regime within the NSG

Indeed, one can see that this set-up has actually influenced the recent operations of the NSG. For example, a permanent Point-of-Contact was established for administering the dual-use regime, as one had been for administering the MTCR. At the NSG meeting in Warsaw, this task was entrusted to the Japanese Mission to the IAEA in Vienna. This Point-of-Contact (POC) is responsible for channeling information exchanges among states subscribing to the regime, preparing and organizing meetings, coordinating various consultations, and maintaining the necessary records. These and other mandatory functions reflect the nature, scope, and envisaged intensity of the dual-use regime's activities, particularly its mechanisms for consultation and exchange of information. With a Point-of-Contact and a Chairman of its own, as well as a separate internal arrangement for admitting members, the dual-use export control regime forms a distinct and "autonomous" part of the NSG.

New Procedural Arrangements

At some point after the dual-use regime was adopted, this "autonomy" was seen as a problem. In particular, some

fears were expressed that different procedures used by states to adhere to the two sets of guidelines (under the London Guidelines it was sufficient to send a communication of adherence to the Director General of IAEA) might result in a different membership of the NSG as a whole and the dualuse regime, even creating some risk of a split. To prevent such an eventuality, to bring about a harmonization of the NSG and dual-use regimes' membership, and to provide some basis for the Group's effective operation, a procedural arrangement for the Nuclear Suppliers Group was elaborated by a working group and adopted at the Lucerne meeting.

The arrangement confirms the present NSG membership of 28 countries that fully participated in the Lucerne meeting⁴ and establishes the procedure for joining the regime. This procedure calls for the NSG members to reach a consensus about the invitation of a new state, and requires the new state to accept the NSG guidelines in their entirety (i.e., both Parts 1 and 2 of INFCIRC/254/Rev. 1). A communication of adherence sent to the IAEA will therefore no longer suffice. Countries adhering only to the "nuclear" part of the guidelines, i.e. Part 1 of INFCIRC/254/Rev. 1 may be granted the right to attend the meetings, although they may not participate fully, before their adherence to Part 2. Also, the invitation of observers, whether they are countries or international organizations, requires the members' consensus.

The arrangement also provides for an annual plenary meeting as the main forum for discussion of proliferation concerns and decision-making and reaffirms the rule of consensus. The next plenary meetings are to be held in Madrid in 1994 and in Helsinki in 1995.

An important role is accorded to the chairmanship of the Group, held on a rotational basis for one year by the host country of the annual plenary meeting. In addition to presiding over meetings, setting their agendas, and handling organizational details, the chair is vested with some intersessional duties, such as approaching prospective member states, communicating with the IAEA, initiating consultations, and coordinating actions resulting from them.

Sharing Information

For the effective operation of the nuclear-related export control regime, which is implemented by NSG members on a national basis, the exchange or communication of relevant information is essential. This is particularly true for the dual-use regime, which covers a wide range of commodities having different end uses. While the basic documents of both parts of the regime contain provisions covering consultations or information exchange, these provisions are more specific for the dual-use regime.

Reference was made earlier in this paper to devious practices used by countries of proliferation concern to obtain dual-use goods and technologies for unsafeguarded and/or non-peaceful nuclear use. To prevent those practices effectively, supplier states need to know the ways in which these techniques are used, and the whereabouts of the perpetrators. Some of this information can be obtained from public sources such as publications and data bases maintained by specialized research organizations. However, sensitive government-to-government information, which must often be gathered by intelligence services, plays a major role. Regular exchanges of this kind of information are especially important to countries with limited independent intelligence capabilities. Information on steps taken by governments in the implementation of export controls, such as denials of supply, must also be shared. This information, by its very nature, must be confidential as well.

NSG members fully realize the need to continually improve the methods for sharing information, so that the scope of information is broadened and the speed and efficiency of communication is improved. Computerized information systems are seen as a desirable component in this process. Improvements are actively pursued by the Group.

Public Outreach

Although confidentiality is essential to NSG activities, there is room for increased public knowledge about the Group. Greater public outreach could dispel some persisting misgivings about its operations and properly accentuate the importance of both its nonproliferation objective and its role as a facilitator of nuclear-related commerce for peaceful uses. Some steps have already been taken to this effect. Starting at the meeting in The Hague, the NSG has regularly issued press releases to inform the general public of the range of issues discussed at its meetings, as well as measures contemplated and adopted. Such releases emphasize the group's fundamental objective, which is to ensure that cooperation in peaceful uses of nuclear energy does not, in any way, further the proliferation of nuclear weapons.

Capacity to Learn and to Change

All the developments that have occurred within the NSG since 1991 clearly prove the Group's capacity to learn and to change. The NSG member states have made a serious effort to increase the effectiveness of the nuclear-related export control regime. This effort was prompted by the post-Cold War international environment, the effects of the Gulf War, and by growing risks of nuclear proliferation. Changes in the regime include a substantial expansion of its scope, procedures to tighten it up, attempts to involve new suppliers, and the creation of a working review and implementation mechanism. The adoption of the dual-use export control arrangement has certainly been the most significant result of this effort.

If there was a period of several years when the NSG lagged behind other nonproliferation bodies such as the Australia Group, the MTCR, or even the Zangger Committee, that period definitely belongs to the past. As the largest and most heterogenous among these bodies, the NSG now stands on a par with them in actively facing proliferation dangers and trying to counteract them. In so doing, the NSG responds to developments in other international organizations, whether directly (as when supporting the creation of an IAEA system of universal reporting or harmonizing its Trigger List with the Zangger Committee) or obliquely (e.g., adapting some features of other regimes in the dual-use arrangement).

Challenges for the Future: Suppliers and Recipients

There is no doubt that in the course of the past two and a half years the Nuclear Suppliers Group has accomplished many things. It has become a different organization — a living one.

Two major challenges now face the NSG. The first one is the phenomenon of suppliers who, if they are not somehow bound by NSG export control norms, might undermine the effectiveness of these norms and of the non-proliferation regime. The other challenge comes from countries of proliferation concern, which have shown considerable "ingenuity" in seeking nuclear-related equipment and technology for non-peaceful nuclear uses. Meeting these principal challenges, in my view, will set the agenda for the NSG for the years to come.

The course for attracting and incorporating new supplier

states to the Group has been set and is being pursued. The prospects for its success have been assessed as reasonably good with respect to some countries and less certain for others. Entry of any developing or "Southern" country into the group will enhance the NSG's international standing as a bona fide nonproliferation organization.

On the other hand, the NSG might make a case for

preventing the non-member supplier countries from undermining the NSG nuclear related export control regime, which might include using the leverage of restrictive trade measures. Thwarting the often devious practices of wouldbe proliferators might call for making the conditions of supply even stricter and moving toward more probing evaluation of recipients' real nonproliferation standing and intentions. Some communication between the NSG and international verification activities (by the IAEA or the UN Security Council) may also be considered. To cope with all of its pressing tasks, the Group will have to develop and operate an effective mechanism for information sharing and consultations. Some information exchange with other nonproliferation groups or with the IAEA may become necessary.

In sum, since the importance of nonproliferation in the coming years is bound to grow and become a greater priority in the policy of many states, notably NSG members, the role and effectiveness of this Group in preventing nuclear proliferation will be enhanced.

Notes

1. Australia, Bulgaria, Denmark, Finland, Greece, Hungary, Ireland, Luxembourg, Norway, Portugal, Romania, Spain.

2. Austria joined to the Group at the end of 1991.

3. Belarus acceded to the NPT in July 1993.

4. The other members are Australia, Austria, Belgium, Bulgaria, Canada, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Japan, Luxembourg, the Netherlands, Norway, Poland, Portugal, Romania, Russian Federation, Spain, Sweden, Switzerland, United Kingdom, United States of America. The Czech Republic and Slovakia became new members at the meeting.