

THE NUCLEAR SUPPLIERS GROUP AT THE CROSSROADS

The Nuclear Suppliers Group (NSG), of which Switzerland is a member, aims to prevent exports of goods that can be misused for building nuclear weapons. In view of the proliferation of peaceful nuclear programmes and the desire of nuclear-armed India to join the organisation, the identity of the NSG is currently under discussion. The admission of India would signal a transformation of the NSG from a group dedicated to strengthening the nuclear non-proliferation norm into an association of states capable of nuclear exports.



The question of India's admission to the NSG is controversial: Construction of nuclear reactors in Kudankulam, India, 14 April 2009.

IAEA / Petr Pavlicek

The Nuclear Suppliers Group (NSG) is an instrument for controlling exports of material and technologies that can be used to build nuclear weapons. Its members aim to facilitate only such exports that are unquestionably intended for the peaceful use of nuclear energy. The NSG export control regime is only politically binding and is not based on any treaty under international law. The essence of its activities consists of coordinating the national NSG export controls based on appropriate guidelines. The member states also exchange information to improve enforcement of export controls. The key point of reference for the NSG's work is the Nuclear Non-Proliferation Treaty (NPT), which permits peaceful use of nuclear energy, but at the same time prohibits support to non-nuclear-weapons states in the construction or procurement of nuclear arms.

Until now, the member states have regarded the NSG as an instrument for strength-

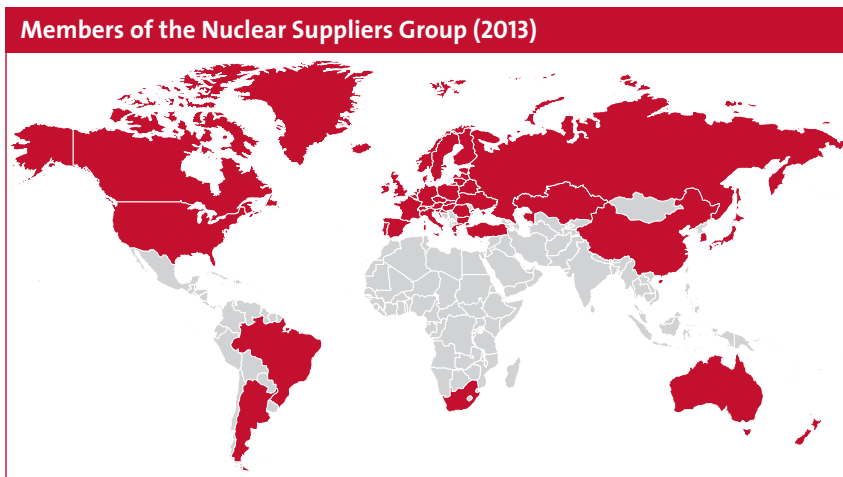
ening the nuclear non-proliferation norm. However, there are two developments that challenge this purpose: First of all, in the course of globalisation, more and more states are gaining access to technologies that can be used for the production of nuclear weapons. For instance, the United Arab Emirates and Vietnam are currently planning the construction of nuclear reactors. Secondly, the NSG must reach a decision on the matter of expanding membership. In particular India, a nuclear-armed state that is not an NPT signatory, is pushing to join the group. Thus, extending membership to Delhi would change the nature of the NPT. The Indian request for membership may therefore be regarded as a test case for the question of whether the NSG should remain an association of states that are fundamentally committed to the goals of the NPT, or whether it should develop into a group of states that have the ability to engage in nuclear exports.

The NSG: Its origins and foundations

It was India's nuclear test on 18 May 1974 that prompted seven countries – the US, the Federal Republic of Germany, France, the UK, Japan, Canada, and the Soviet Union – to coordinate their nuclear export controls. The plutonium used in the Indian test had been produced in a reactor supplied by the US and Canada on the assumption that it would be used exclusively for civilian purposes. While India, which was not an NPT signatory, described the test as a “peaceful nuclear explosion”, the country was suspected of maintaining a nuclear weapons programme.

In 1977, the association – which by that time had 15 members and was known as the “London Group” – approved the first guidelines for exporting nuclear material and equipment. Since 1991, the name “Nuclear Suppliers Group” has been in common use. Currently, it has 46 state members. The purpose of the NSG is to prevent access to technologies that can be used for military nuclear programmes, while still permitting access to peaceful use of nuclear energy. The NSG does not have a permanent secretariat. The annual plenary assembly is held in the country that holds the annually rotating chair. In addition, its activities include working groups, expert meetings, and discussions with non-participating states. All of the NSG's decisions are subject to the consensus rule.

Approval of a country's bid for NSG membership depends on five criteria: The capability to supply the goods listed in the NSG guidelines; the willingness to apply the NSG guidelines; the existence and implementation of a national export control



regime that is compatible with NSG rules and is legally binding; membership in the NPT (or a comparable regional agreement such as a Nuclear-Weapons-Free Zone) and complete enforcement of its rules; and the willingness to support international efforts for non-proliferation of weapons of mass destruction (WMD).

The NPT constitutes the backbone of all international efforts to prevent the proliferation of WMD (cf. CSS Analysis No. 65 [□](#)). While the NSG makes reference to the NPT, it is not part of this treaty. Under the NPT, the currently 190 member states commit themselves to renouncing nuclear weapons. The exception to this rule are the five acknowledged nuclear powers (the US, Russia, the UK, France, and China); these, however, had to promise to make earnest efforts towards nuclear disarmament. At the same time, the NPT contains a clause on free access to nuclear energy. It makes explicit provisions for the exchange of equipment, material, and information to facilitate the peaceful use of nuclear energy.

By requesting that member states should harmonize their national export controls and adapt them to the NSG guidelines, the NSG aims to ensure that this legitimate exchange is not misused for producing nuclear weapons. To this end, the NSG issues export control lists: The first is a list of nuclear goods such as reactors and associated equipment, including non-nuclear material, as well as installations for reprocessing, uranium enrichment, conversion of nuclear materials, production of nuclear fuel rods, and heavy water production. The second list includes items and technologies that have both nuclear and non-nuclear applications (dual-use goods) and can be important for nuclear weapons programmes. These lists must be constantly updated.

One important aspect of the NSG members' work is information exchange on the application of export controls. If an NSG state refuses to export certain goods to a third country, that information should be passed on to all NSG members to ensure that importers of nuclear goods cannot play the NSG members off against each other. Furthermore, information is also exchanged about networks and middlemen attempting to circumvent export controls.

Many developing countries complain that the NSG constitutes a cartel of technology owners. The NSG members argue that ensuring the peaceful use of exports is a basic precondition for any kind of assistance to developing civilian nuclear programmes. They also try, however, to reduce concerns through transparency measures such as regular updates on NSG activities, information events for non-members, and a website.

Over the years, NSG members have gradually strengthened their export control regime. At the beginning of the 1990s, inspections by the International Atomic Energy Agency (IAEA) following "Operation Desert Storm" showed that Iraq had developed a fairly advanced nuclear weapons programme using imported dual-use goods. This realisation significantly influenced the NSG's work. In 1993, its members decided that listed goods should only be delivered to states willing to submit their nuclear activities to the IAEA's full-scope safeguards. Furthermore, the NSG states in 2004 adopted a so-called catch-all mechanism to interdict even exports of unlisted goods to countries suspected of maintaining an illegal nuclear weapons programme.

The NSG members debated for almost a decade over tightening export controls for especially sensitive technologies such

as uranium enrichment and reprocessing. Such technologies can be important elements of a complete nuclear fuel cycle used for peaceful purposes. They can also be used, however, to produce the two potential basic materials for building nuclear bombs: highly enriched uranium or plutonium. In 2011, the NSG agreed to deliver sensitive technology only upon compliance with certain conditions. The key criteria are the recipient country's membership in the NPT and compliance with the IAEA safeguards. Also, the recipient country must adhere to the IAEA Additional Protocols or a comparable regional regime. Many NSG member states advocate that adherence to the IAEA Additional Protocols should be a precondition for delivery not just of uranium enrichment and reprocessing technology, but for all nuclear goods. Advances on this question are obstructed, however, by the fact that not all NSG states have yet ratified these Additional Protocols (cf. info box).

Challenges

The NSG currently faces a number of challenges. For instance, it must constantly update its guidelines in order to prevent loopholes being created by ongoing technical-scientific advances. Another issue is the proliferation of peaceful nuclear programmes. If countries that are not NSG members begin to use nuclear energy, this makes them potential exporters. However, if such actors who do not adhere to the NSG guidelines can export nuclear goods, the export control regime is weakened. From this perspective, therefore, it would be advisable, as a matter of principle, to admit to the NSG all states capable of nuclear exports.

However, the question of membership is a pivotal one for the identity of the NSG. Until now, the NSG has been regarded mostly as an instrument for preserving and strengthening the nuclear non-proliferation norm. If countries whose identification with that norm is dubious should now increasingly be admitted as members, that would fundamentally change the nature of the NSG. Already today, the consensus rule means that joint decisions are only reached after protracted negotiations. Expanding membership would make it even more difficult to reach consensus. Furthermore, admitting countries where the implementation of export controls is inadequate would lower the currently high standards in applying NSG guidelines.

The example of China shows which problems may arise. Currently, Beijing plans to

deliver two nuclear reactors to Pakistan, which is not an NPT signatory and has nuclear weapons. While these nuclear exports are to take place under the auspices of the IAEA, Pakistan is unwilling to submit all its nuclear installations to IAEA full-scope safeguards as demanded in the NSG guidelines. Beijing justifies its exports to Pakistan arguing with a “grandfather clause” that the treaties with Islamabad were signed before China joined the NSG. However, not all NSG members accept this reasoning. Indeed, some accuse China of undermining the work of the NSG with its actions.

However, the matter of NSG membership is first and foremost linked to the question of the NSG’s linkage with the NPT. So far, only NPT members may join the NSG. If all nuclear supplier countries were to be involved in the work of the NSG, one would also have to consider countries like India, Pakistan, and Israel, which maintain nuclear weapons programmes outside of the NPT.

India as a candidate for membership

This question has already arisen in practical terms in connection with a possible admittance of India to membership. Delhi is not an NPT member. At least since the nuclear tests of 1998, it is obvious that India possesses nuclear weapons. Furthermore, it is expanding its arsenal of approximately 80-100 nuclear warheads and is also commissioning new delivery systems. Within the NSG, relations with India have been an explosive topic for years. The US administration of George W. Bush, supported by France and Russia, among others, was in favour of issuing an NSG exception clause for India in order to be able to export NSG-relevant goods to India as well. After protracted debate, the NSG Plenary in September 2008 approved such a clause. The precondition was that India would separate its civilian nuclear programme from its military one and make the former subject to IAEA inspections.

Now, India wishes to go one step further and become an NSG member. However, Delhi has not yet submitted a formal request for admission. In addition to considerations of prestige, economic aspects are crucial here. Membership in relevant export control regimes would mean easier access to sensitive technologies for India, whose economy is expanding. From the NSG’s point of view, the advantage of Indian membership would be the integration

The IAEA Additional Protocols

The Additional Protocols expand the IAEA’s inspection authority as invested in it by the comprehensive safeguard agreements. They are to enable the nuclear watchdog agency to discover nuclear activities that have no relation to the civilian nuclear programmes of a country. The Additional Protocols were adopted in 1997 by the IAEA Board of Governors and are now in effect in 119 countries. The basis for these is a model additional protocol that allows the IAEA to undertake certain adaptations tailored to specific countries. The key points of the model protocol are:

- ▮ **Extended declarations:** The states have a more comprehensive duty to provide information on all activities and installations related to the nuclear fuel cycle, e.g., research activities, nuclear exports, uranium mines, or nuclear waste deposits. The IAEA can request additional information.
- ▮ **Extended access:** All buildings located in declared sites can be inspected at short notice.
- ▮ **Extended environmental sampling authority:** The IAEA can, in principle, collect environmental samples at any location it chooses.
- ▮ **Streamlined inspections:** The states must reduce administrative obstacles for inspectors and facilitate communication with the IAEA headquarters at all times.

of an important potential exporter into its regime. Furthermore, four nuclear powers – the US, France, the UK, and Russia – support India’s membership bid because they have an economic interest in maintaining a flourishing nuclear trade with the country.

Other NSG member states are sceptical with regard to membership for India. They argue that this would mean a decoupling of NPT and NSG memberships. Until India relinquishes its nuclear weapons – which there is currently no reason to believe it will do – it cannot join the NPT. As a nuclear-armed state, India is banned from joining the NPT, as the treaty only acknowledges those countries as nuclear powers that had conducted nuclear explosions before 1 January 1967. However, NSG membership for a nuclear-armed state that is not an NPT signatory would increase resentment among those non-nuclear NPT states that regard the NSG as an illegitimate instrument of industrialised countries aiming to refuse less developed countries access to economically significant technologies. Indeed, the NSG would lose credibility because its members have affirmed time and again that the NPT non-proliferation norm is the point of reference for their export control activities. Extending NSG membership to nuclear-armed India would hardly be compatible with such a statement.

From the critics’ point of view, there are other arguments that militate against India’s NSG membership. For instance, unlike the US, Russia, France, and the UK, India continues to produce fissile material for the production of nuclear weapons. Also, Delhi is unwilling to ratify the Comprehensive Nuclear-Test-Ban Treaty (CTBT), though the US, for instance, has not done

so yet either. Another argument against admission is the fact that India would hardly contribute to strengthening export control guidelines if admitted to the NSG.

China, too, objects to NSG membership for India. Against the background of its rivalry with Delhi, Beijing is not interested in improving India’s international standing. If non-members of the NPT should in principle be eligible for admission to the NSG, the Chinese argument continues, this should not mean selective admission for individual countries. Instead, admission to membership should be based on consistent criteria. In this way, China intends to facilitate later admission of Pakistan, with which it has close relations in the nuclear field, to the NSG. Acceptance of India as a member would essentially preclude later admission of Pakistan, as Delhi would most likely refuse an application by Islamabad. However, irrespective of these considerations, implementation of export control regimes has been very weak in Pakistan, allowing the so-called Khan Network to extend illegal support to the nuclear weapons programmes of Libya, Iraq, and North Korea.

It is currently difficult to predict the outcome of the debate over India. The debate over the exception clause for nuclear deliveries to India had already brought the NSG to the brink of dissolution. If the NSG aims to uphold an effective export control regime in a globalised world where access to technologies used for nuclear arms is becoming easier and easier, it must ensure that crucial decisions affecting the identity of the group are supported by as many members as possible. Otherwise, the cohesion and thus the effectiveness of the NSG are in danger of dissolving.

Switzerland and the NSG

Switzerland is a member of the NSG. Already in 1977, the Federal Council decided to apply what was then known as the "London Guidelines" for nuclear-relevant export controls. Like all countries that had adopted those guidelines, Switzerland was invited in 1991 to the assembly at which the Nuclear Suppliers Group first met under that name. Just two years later, in 1993, Switzerland chaired the group for one year. Swiss export controls are based on the Goods Control Act and a Goods Control Ordinance. Exports of listed goods must be approved by the State Secretariat for Economic Affairs (SECO). Occasionally, export applications are denied.

There are four reasons why Switzerland is a member of the NSG: First of all, Switzerland has a general interest in strengthening non-proliferation regimes, especially the NPT. This purpose is advanced by export controls of maximum efficiency under the NSG. Secondly, the country aims to shape those export control regimes that affect its own export regulations. Third, Switzerland is safeguarding its own economic interests. Through harmonisation of export controls, it aims to ensure that its own domestic industry does not suffer disadvantages. What is at issue here are not so much goods that have immediate applications in the nuclear field, but mainly products of the Swiss machine tool industry. Fourth and finally, the exchange of information within the NSG facilitates better implementation of the Swiss export guidelines.

Switzerland is not opposed in principle to expanding the NSG. However, it wants to avoid jeopardising the group's ability to reach consensus or any diminished harmonisation of guidelines through admittance of other countries. Switzerland has not reached any decision yet on the question of potential NSG membership for India.

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