The Nuclear Suppliers Group (NSG)  
Evolution and Outlook

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Outline

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NSG in context

NSG is a **multilateral export control regime**: informal arrangement of nuclear supplier countries that agree on and implement standards for the export of nuclear and nuclear-related dual-use items.

Standards (conditions of supply and principles) are not legally-binding but represent a policy commitment to be implemented at the national level by the members of the Group.
**Aim** of the NSG:

- to ensure that nuclear trade for peaceful purposes does not contribute to the proliferation of nuclear weapons and other nuclear explosive devices, and

- that international trade and cooperation in the nuclear field are not hindered unjustly.
Tools:

• Guidelines and Control Lists

• Information Exchange
NSG complements the other multilateral export control regimes:

- Zangger Committee (ZC) – Nuclear
- Australia Group (AG) – Chemical and Biological
- Missile Technology Control Regime (MTCR) – Missiles
- Wassenaar Arrangement (WA) - Conventional
NSG complements legally-binding elements of the global nuclear non-proliferation regime:

- Treaty on the Non-Proliferation of Nuclear Weapons (entry into force 1970)
- Treaties on Nuclear-Weapon-Free Zones
- IAEA Safeguards Agreements
48 Participating Governments (PGs)
Origins and development

1950s/1960s: Individual nuclear suppliers developed their own policies.

1971: Major nuclear suppliers came together in the Zangger Committee to reach a common understanding on how to interpret and implement NPT Article III.2 (general legal norm for nuclear exports).
1974: Nuclear explosion by India showed that nuclear technology transferred for peaceful purposes could be misused and thus a need to adapt the conditions of nuclear supply.

1975: Group of states met in London ("London Club") to develop a more comprehensive list of export controls - led to the establishment of the Nuclear Suppliers Group.
1978: Publication of Guidelines for the Export of Nuclear Material, Equipment and Technology incorporating a “Trigger List” (Part 1 Guidelines)

Early 1990s: Discovery of a clandestine nuclear weapons programme in Iraq (largely by acquiring dual-use items and then building its own Trigger List items)

Several major amendments of the provisions in the Guidelines since 1978/1992 (for instance to better respond to proliferation concerns or to help prevent acts of nuclear terrorism) as well as of the Control Lists (2010-2013 fundamental review)
Structure and functioning

PLENARY – Chair/Troika

Consultative Group

Technical Experts Group

Information Exchange Meeting

Licensing and Enforcement Experts Meeting

Point of Contact (PM of Japan in Vienna) provides practical support to Chairs and the Group
Plenary

• Governing and decision-making body for all NSG issues
• Regular annual meeting (possibility for intersessional Extraordinary Plenaries)
• Mandates outreach activities by the Chair

Chair

• One-year term
• Assisted by “Troika” (previous, current, future Chairs)
Consultative Group (CG)

• Standing working body (at least twice a year)
• Considers issues related to the Guidelines and Control Lists, reports and makes recommendations to the Plenary

Technical Experts Group (TEG)

• Established in 2013 after the three-year fundamental review of the Control Lists
• Tasked by the CG with ensuring the Control Lists are complete and up-to-date, makes recommendations thereon to the CG
Information Exchange Meeting (IEM)
• Standing body that reports and makes recommendations to the Plenary
• To share information and developments of relevance to the objectives and content of the NSG Guidelines

Licensing and Enforcement Experts Meeting (LEEM)
• Meets during the Plenary week in close relationship with the IEM and reports to the IEM
• To discuss issues and exchange information related to effective licensing and enforcement practices
Decision-making by **consensus**

Confidentiality vs. transparency

**Transparency**

- Public Statement issued after the Plenary
- Website ([www.nuclearsuppliersgroup.org](http://www.nuclearsuppliersgroup.org))
- Outreach
Outreach objectives

• Broaden understanding of the NSG’s work
• Promote adherence to the NSG Guidelines
• Dialogue with third parties on issues of common interest and concern related to nuclear non-proliferation and nuclear export controls
Outreach partners and venues

• Countries that have adhered to the NSG Guidelines
• Countries with significant nuclear programmes
• Transit/Transshipment countries
• Multilateral and regional fora
• Industry
Guidelines and Control Lists

Guidelines for the Export of Nuclear Material, Equipment and Technology
Annex: “Trigger List”
(INFCIRC/254/Rev.13/Part 1) – 8 November 2016

Guidelines for Transfers of Nuclear-related Dual-use Equipment, Materials, Software and Related Technology
Annex: “Dual-use List”
(INFCIRC/254/Rev.10/Part 2 [corrected]) – 5 February 2018
Part 1 Guidelines

Prohibit the export of trigger list items and related technology:

• to any non-nuclear-weapon state that does not have full-scope safeguards (three exceptions to FSS), and

• if the exporting country is not satisfied that the export will be used for peaceful purposes.
Three exceptions to the full-scope safeguards requirement:

- if the transfer is deemed essential for the safe operation of a safeguarded facility, or
- if the transfer is covered under a “grandfather” provision, or
- if the transfer is destined to a safeguarded facility in India (“2008 India exception”).
Other main conditions of supply include:

• Formal governmental assurances from recipients
• Physical protection measures
• Particular caution/restraint in the transfer of sensitive facilities, technologies and materials
• Retransfer provisions
Trigger List

Covers *nuclear fuel-cycle* material, equipment, technology (incl. software)

Guiding question: “Are the items *especially designed or prepared* for the processing, use or production of special fissionable material?”

*Illustrative list*: technical descriptions can be sufficiently broad to cover all usable items of that type
Trigger List contains:

- Nuclear material
- Nuclear reactors and equipment therefor
- Non-nuclear material for reactors
- Plants and equipment for reprocessing, enrichment and conversion of nuclear material, fuel fabrication and heavy water production
- Technology, incl. software, associated with the above items
Part 2 Guidelines

Prohibit (no exceptions) the export of dual-use list items:

• to any non-nuclear-weapon state for use in a nuclear explosive activity or an unsafeguarded nuclear fuel-cycle activity, or
• when there is a risk of diversion or when the export would be contrary to nonproliferation objectives, or
• when there is a risk of diversion to acts of nuclear terrorism.

“Catch-all” provision for non-listed items
Dual-use List

Covers both *fuel-cycle and weaponisation*, but items can have non-nuclear uses as well.

Guiding questions: “Have proliferators sought these items?”, “Can the items be controlled?”, “Is it feasible/useful to control them?”

**Definitive list**: entries with a degree of technical detail and narrowly worded to cover only those items that are *significant and controllable*
Dual-use List contains:

- Industrial equipment
- Materials
- Uranium isotope separation equipment and components (other than Trigger List items)
- Heavy water production plant related equipment (other than Trigger List items)
- Test and measurement equipment for the development of nuclear explosive devices
- Components for nuclear explosive devices
- Technology, incl. software, associated with the above items
Outlook: Challenges and key issues

• Global nuclear power capacity will increase
• Nuclear industry becoming more globalised
• Keeping pace with new technological developments
• Countering continued proliferation threats
• Promoting adherence to the NSG Guidelines
• Expansion vs. effectiveness
• Requests for participation from non-NPT States
Switzerland and the NSG

Member of the NSG since 1977

Lucerne Plenary (1993)
• Adopted Procedural Arrangement
• Amended Para. 4 of Part 1 of the Guidelines to include full-scope safeguards as a condition of supply

Bern Plenary (2017)
• Adopted revised guidance on outreach