



# International Trade of Nuclear Materials and Equipment

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# Content of the lecture

## **Specificity of Nuclear Trade Rules :**

Why does nuclear trade derogate from general trade rules ?

## **Trade Control Rules :**

- International trade (export) control regime
- European Union trade control regime

## **Case study**

# 1. Specificity of Nuclear Trade Rules :

Why does nuclear trade derogate from general trade rules ?

# A. General International Trade Principle

**Principle** : International trade exchanges should flow as smoothly, predictably and freely as possible

Within the guidelines defined by WTO (GATT, GATTS, TRIPS agreements)

**Derogations** : Strictly defined, exceptional and ruled by international agreements

## Derogations could be allowed for

- **Economic** reasons :

Safeguard the balance of payments, prevent sudden increases in imports from causing serious injury to domestic producers,....

- **Non-economic** reasons :

Necessity to protect public morals or protect human, animal or plant life or health,... **and**

# For security reasons

**Article XXI of GATT** establishes **five exceptions** for security reasons and related to:

- Information
- UN embargoes
- War and emergency
- Arms and related items
- Nuclear materials

# 1. United Nations embargoes exception

*Nothing in this Agreement shall be construed*

*(c) to prevent any contracting party from taking any action in pursuance of its obligations under the United Nations Charter for the maintenance of international peace and security.*



# Charter of the United Nations

## Article 39

*The Security Council shall determine the existence of any **threat to the peace**, breach of the peace, or act of aggression and shall make recommendations, or **decide** what **measures** shall be taken in accordance with Articles 41 and 42, to maintain or restore international peace and security*

## Article 40

*The Security Council may decide what measures not involving the use of armed force are to be employed to give effect to its decisions, and it may call upon the Members of the United Nations to apply such measures. These may include complete or **partial interruption of economic relations** and of rail, sea, air, postal, telegraphic, radio, and other means of communication, and the severance of diplomatic relations*

# List of countries under embargoes decided by the UN Security Council

Libya, Belarus, Former Yugoslav Republic of Macedonia, Bosnia and Herzegovina, Moldova, Burma Myanmar (Burma), Democratic Republic of Congo, Côte d'Ivoire, Sierra Leone, Croatia, Somalia, Haiti, Sudan, Iran, Syria, Iraq, Ivory Coast, Democratic People's Republic of Korea (North Korea), Uzbekistan, Lebanon, Yugoslavia (Serbia and Montenegro), Liberia, Zimbabwe

Items covered by UN embargoes could be rather different:

- Embargo on arms and **related materials**
- Ban on exports of equipment for **internal repression**
- Ban on provision of certain **services**
- Restrictions on **admission**
- **Freezing of funds** and economic resources of certain persons who constitute a threat to the peace and national reconciliation process

## Example : Resolution 1718 (2006) on People's Democratic Republic of North Korea

### 8. *Decides that:*

*(a) All Member States shall prevent the direct or indirect supply, sale or transfer to the DPRK, through their territories or by their nationals, or using their flag vessels or aircraft, and whether or not originating in their territories, of:*

*(ii) All items, materials, equipment, goods and technology as set out in the lists in documents S/2006/814 (**NSG trigger and dual-use lists**) and S/2006/815 (**MTCR list**), unless within 14 days of adoption of this resolution the Committee has amended or completed their provisions also taking into account the list in document S/2006/816 (**Australia Group list**), as well as other items, materials, equipment, goods and technology, determined by Security Council or the Committee, which could contribute to **DPRK's nuclear-related, ballistic missile-related or other weapons of mass destruction-related programmes**;*

## 2. Arms and related items exception

*Nothing in this Agreement shall be construed*

*(b) to prevent any contracting party from taking any action which it considers necessary for the **protection of its essential security interests***

*(ii) relating to the traffic in **arms, ammunition and implements of war** and to such traffic in other goods and materials as is carried on directly or indirectly for the purpose of supplying a military establishment;*

- Used by the United States at the beginning of the Cold War in order to impose an embargo on export of strategic goods (200 entries) to Czechoslovakia
- Ground for Wassenaar Arrangement, MTCR, Australia Group Zangger, NSG trade control lists



### 3. Nuclear materials exception

*Nothing in this Agreement shall be construed*

*(b) to prevent any contracting party from taking any action which it considers **necessary** for the protection of its essential security interests*

*(i) relating to **fissionable materials or the materials from which they are derived;***

## Two potential interpretations

- **Minimum** : authorise only “national security essential interests” related restrictions

Nuclear trade could be restricted for “non-proliferation concerns”

- **Maximum** : authorise all nuclear trade derogations

Nuclear trade could be limited to assurance/protection of national energy needs

# **B. International Nuclear Trade Principle**

## **The general trade principle is overturned**

- Principle : Prohibition
- Trade : Exception

## **All nuclear transfers shall be submitted to (trade) authorisation**

- Might even lead to prohibition of specific technologies : suppliers “should restrain themselves” from transferring some “sensitive technologies”

# Why is it so ?

Nuclear trade is ... Victim of the Original Sin

First large developments of nuclear applications were dedicated to the elaboration of an **explosive device**

US Manhattan project

**Consequence:** nuclear technology has been essentially considered as **military** technology rather than as technology with essentially **peaceful** applications

# 1946 : US imposed a trade prohibition on all nuclear technologies

**Adoption** in July 1946 of the Atomic Energy Act (McMahon Act) establishing a program **restricting the dissemination of information** inside and outside the country

**Motivation** : if potential peaceful application of nuclear physics could be developed, it **could not be split** from military one

Nevertheless US prohibition regime appeared rapidly to be :

**1. Ineffective to counter nuclear weapons proliferation**

US principal political competitors and allies have succeeded to elaborate and test a nuclear explosive device (USSR 49, UK 52)

**2. Politically damageable**

Soviet Union was developing peaceful applications and was **ready to share** them with its allies

**3. Commercially damageable**

**Conditions of supply** required by States developing their civil nuclear programs were less constraining than those imposed to US industries

Production of isotopes for medical use

## 1953: US reversed its restrictive nuclear trade policy (Atoms for Peace Plan)

**Principle** : International exchange of nuclear technology is possible **IF** and **ONLY** the use of fissile materials produced or transferred is subject to constant/regular verifications

Atoms for Peace has opened **access** to (US) **peaceful** nuclear applications in exchange of the submission by the **end-user** of adequate **safeguards** assumed by the supplier State or by an international organisation

Between 1956 and 1962 research reactors, training and fissile materials have been provided to 26 countries



# **Difficulties raised by new sharing policy initiated by Atoms for Peace Plan**

**Absence of common guidelines and conditions of supply required by different suppliers regarding**

- Safeguards;**
- Criteria;**
- The list of goods and technologies.**

Therefore India, Israel, China, ... were supplied by different States under different conditions of supply

# Balancing the sharing policy through Multilateral Export Control Regime

Avoiding the risk that US technologies might be transferred directly or indirectly to a **Warsaw Pact member** or another sensitive country, like **China**

The establishment of a **multilateral export control regime** was suggested to **NATO** members

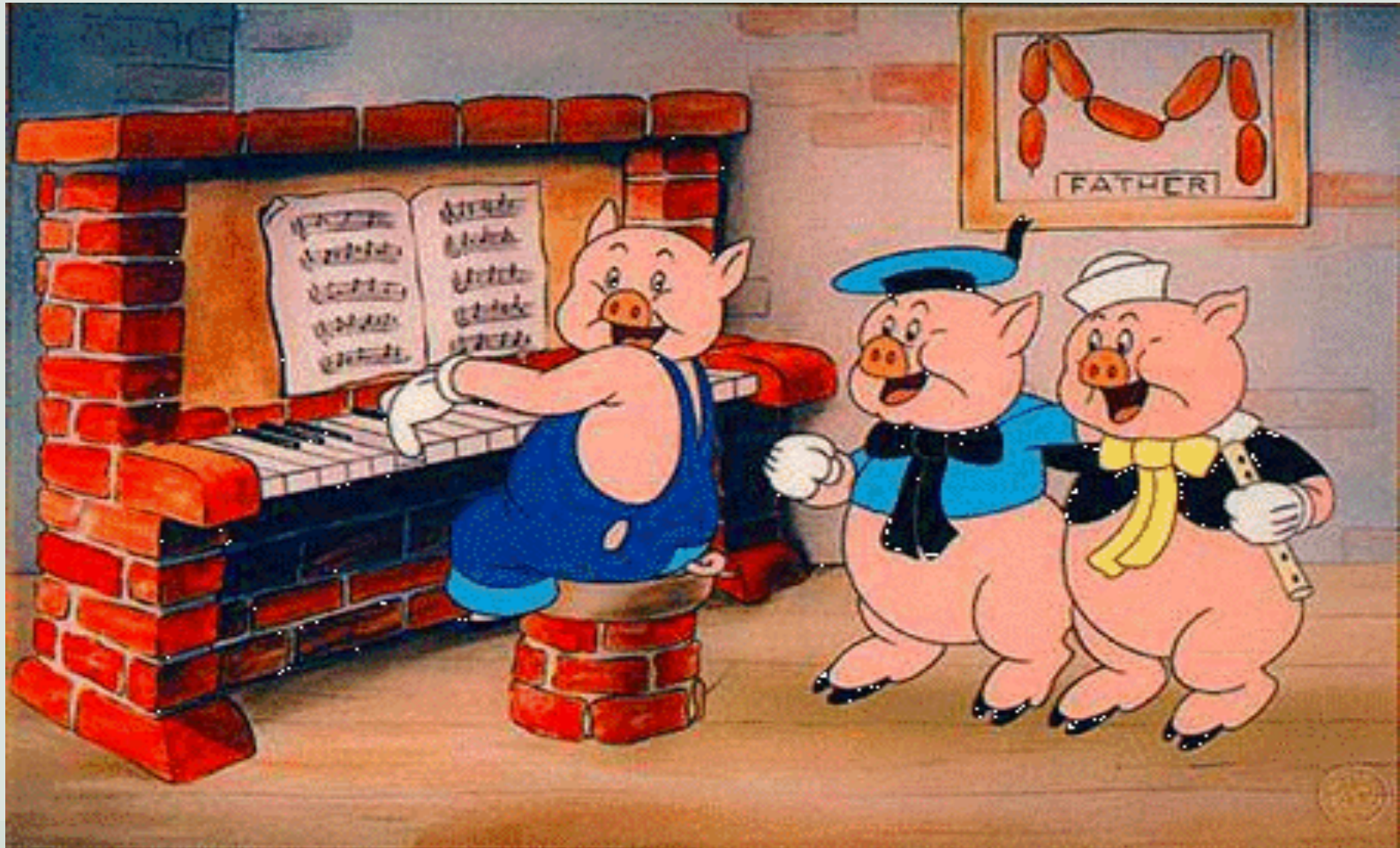
The Coordinating Committee for Multilateral Export Controls (**COCOM**) was created in 1950

The main objective was to ban the export of **sensitive** items to Warsaw Pact members and China

Items which could make a significant contribution to the military or economic potential of the importing country

**Derogation** would have to be authorised by **consensus** of all States Parties

To understand better...



SHREK  
.COM



*Export control regime is one of the three houses: Straw, Sticks and Bricks*

*The wolf is the proliferator*



*The pigs are ... the list of nuclear materials, equipments and technologies*

# Once upon the time ...the COCOM (1956)

Adopted the so-called “strategic list” which included a **list of nuclear items** submitted to export authorisation

Covered material, equipment and technology “**especially designed**” or “**designed**” for the use of nuclear energy

*Nevertheless, China succeeded to build a nuclear weapon*

## *The house of sticks : NPT (1968) and Zangger Committee (1974)*

Adopted a **list** of nuclear materials, equipments and technologies (**especially designed for**), the export thereof will **trigger** a requirement of **safeguards** by the supplier

*But India, Israel succeeded to build nuclear weapons*



## *The house of bricks* : The Nuclear Suppliers Group (1978)

- Some suppliers have not signed or ratified the NPT
- Not politically bound by Zangger **list** of nuclear materials, equipments and technologies
- Creation of Group of Nuclear Suppliers States with no direct link with NPT and adoption of the same list that the one of the Zangger Committee

*But disclosure of Iraqi nuclear weapons research program at the end of the first Gulf War*

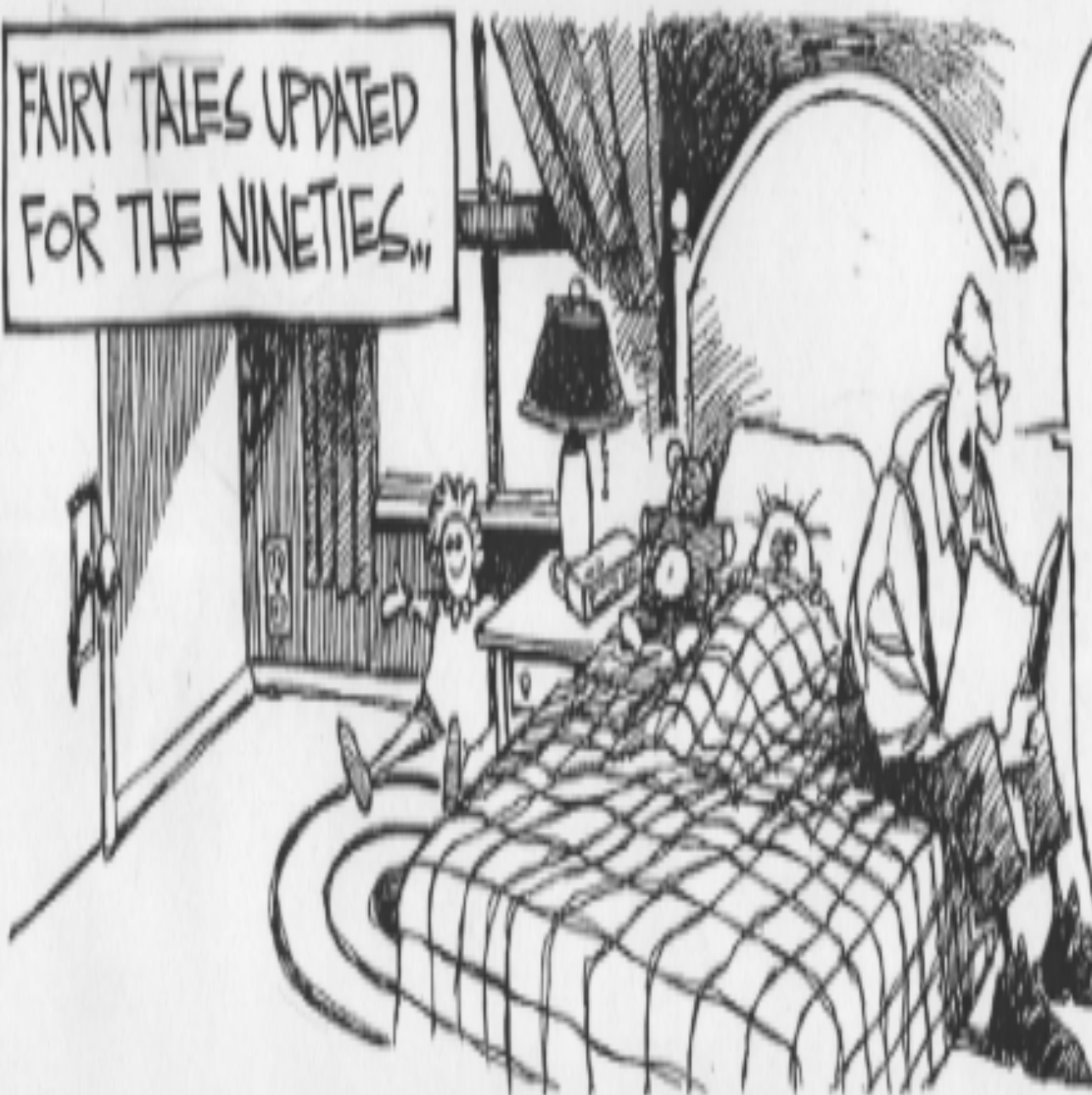
## *The house of ... steal: The Nuclear Suppliers Group (1992)*

Adoption of new list of items : “**dual-use items**”

Equipment, material and technology which have **both** nuclear and non-nuclear applications and could make a significant contribution to an **unsafeguarded** nuclear fuel cycle or nuclear explosive

The list was adopted by the NSG in 1992 and by the Wassenaar Arrangement in 1996

FAIRY TALES UPDATED  
FOR THE NINETIES...



...AND HE PUFFED, BUT HE  
COULDN'T BLOW DOWN THE  
HOUSE MADE OF BRICK.

SO THE BIG BAD WOLF  
WENT DOWN TO THE COUNTY  
RECORDERS OFFICE AND  
DISCOVERED THAT THE  
THREE LITTLE PIGS NEVER  
APPLIED FOR A  
BUILDING PERMIT...



**Don't let one risk hide another.**

We worry about meningitis. What about otitis media? *Streptococcus pneumoniae* and non-typable *Haemophilus influenzae* cause otitis media or meningitis. Both diseases can slow down children's development. This is why remedial solutions should cover both bacteria. Let's protect children from both Sp and NTHI.\*

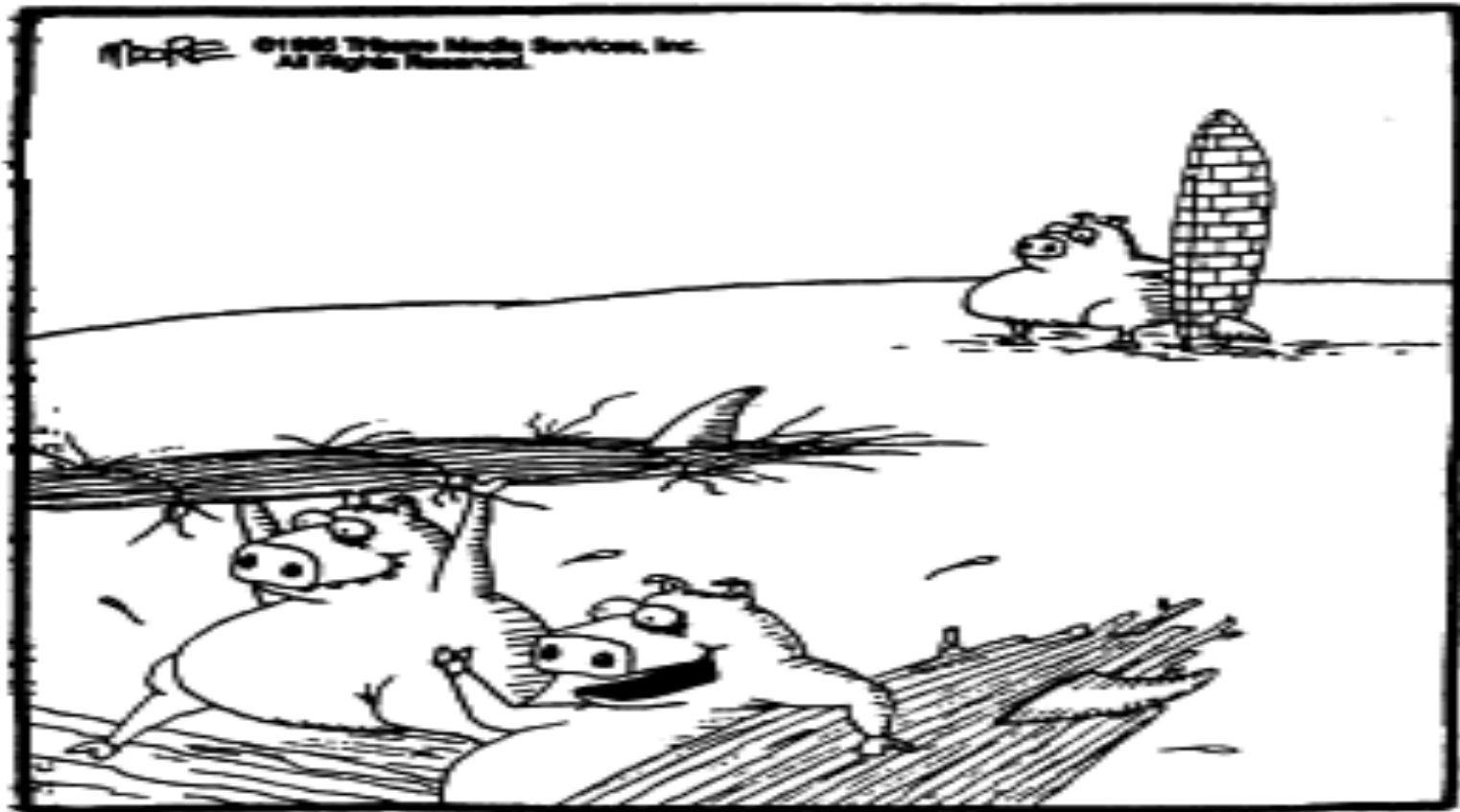
\**Streptococcus pneumoniae* and Non-typable *Haemophilus influenzae*

But new **nuclear proliferation concerns** have been raised since the adoption of the dual-use list by the NSG:

And what if fundamental **principles** on which nuclear export control regimes were based are **not adequate to fight** the nuclear weapons proliferation?

**IN THE BLEACHERS**

By Steve Moore



*The pig watched his two friends run into the surf with boards made of straw and sticks. Later however, his smug sense of security - along with his board of bricks - vanished in about 40 feet of water.*

## Controlling *non-listed* items

List approach to control nuclear trade have shown its limits :

- **Number of entries** could not be extended indefinitely
- **Comprehensive** list could not be fully implemented by National Authorities
- **Lengthy delays** for updating the lists
  - Lists are often below the last level of technology development
- Between **6 and 12 months** to obtain a consensus and a few more to implement it at the national level

# How ? Through catch-all clauses

**Principle** : focusing on the **final/potential** end-users more than on item itself

- In its common use, the item does not present a high proliferation risk but in **certain cases** it could contribute to a WMD program;
- Requiring an authorisation for all exports would be **useless** due to the number of transactions;
- Export authorisation would be required only on case-by-case basis and for **dedicated end-users**;



## Two potential levels:

Catch-all I requires an authorisation for the transfer of non-listed items when the exporter is **informed** by its competent National Authorities that the items in question may be intended, in their entirety or part, for use in connection with nuclear weapons research program

Catch-all II and III require that if the **exporter is aware or has grounds for suspecting** that non-listed items are intended to contribute to nuclear weapons activities; he must notify his authorities which **will decide whether or not** it is expedient to make the export concerned subject to authorisation

# **2. Trade Control Rules :**

## International Trade (Export) Control Regime(s)

# Elements of Trade Control Regime

## Preliminary Remarks:

Nuclear Export Control Regime is largely governed by **informal regulations** (soft law)

- One/two formal international acts : NPT, UNSCR 1540 and 1887
- Several informal acts: Zangger Committee, NSG, Wassenaar Arrangement, MTCR

**Difficulty:** Political commitment usually requires an adoption of national regulation instruments to implement it. Always a risk of an incomplete implementation or an “à la carte” implementation

# **Nuclear Trade Control Regime : Mix of International, Regional and National legislations and bodies**

- NPT, NSG Guidelines, UNSCR, European Regulations, National Regulations and sometimes Sub-national Regulations
- Security Council, IAEA, European Institutions, National Authorities,...

# Trade Control Regime should normally integrate three elements:

1. **Authorisation** system to analyse the export/transit/import applications
2. **Control and verification** system to verify the end-users and the use of the items transferred
3. **Sanctions** to penalise infringements

## What do we have ?

- **Treaty on the Non-Proliferation of Nuclear Weapons**

  - Cornerstone of the regime

- **UNSC 1540, 1977 and 1887**

  - Called for the establishment of an efficient national export control regime

- **Nuclear Suppliers Group (NSG):**

  - Guidelines for Nuclear Transfers ([INFCIRC/254/Rev.9/Part.1](#))

  - Guidelines for Transfers of Nuclear-Related Dual-Use Equipment, Materials, Software, and Related Technology ([INFCIRC/254/Rev.8/Part.2](#))

- **Zangger Committee**

  - Guidelines for nuclear transfers (Trigger List: INFCIRC/209/Rev.2)

- **Wassenaar Arrangement**

  - Guidelines and procedures

  - List of Dual-Use Goods and Technologies

- **Missile Technology Control Regime (MTCR) and International Code of Conduct against Ballistic Missile Proliferation**

**The Resolution 1540 (2004)  
Adopted by the Security Council  
on 28 April 2004**

# Principles

- Adopted to **reinforce** international and national instruments to counter the risk of WMD acquisition by **non-state actors**

Not specifically dedicated to nuclear and nuclear-related items

- Resolution established mostly two categories of constraints for Member States :



# 1. WMD non-proliferation commitment

*1. All States shall refrain from providing any form of support to non-State actors that attempt to develop, acquire, manufacture, possess, transport, transfer or use nuclear, chemical or biological weapons and their means of delivery*

- **Essentially a principle**

  - Does not define how it should be implemented (conditions, criteria)

- **Focus on Non-State Actors (in contrast to the NPT)**

  - Defined as: *individual or entity, not acting under the lawful authority of any State in conducting activities which come within the scope of this resolution*

- **Concerns all WMD and missiles**

  - Defined as: *missiles, rockets and other unmanned systems capable of delivering nuclear, chemical, or biological weapons, that are specially designed for such use*

## 2. Commitments to elaborate an appropriate National Export Control Regime

*« All States, in accordance with their national procedures, shall adopt and enforce **appropriate effective laws** which prohibit any non-State actor » to elaborate WMD « in particular for terrorist purposes, as well as attempts to engage in any of the foregoing activities, participate in them as an accomplice, assist or finance them »*

*« All States shall take and enforce effective measures to establish **domestic controls** to prevent the proliferation » of WMD, « including by establishing appropriate controls over **related materials** »*

## **Appropriate effective laws**

Controlling export, transit, transshipment and re-export and controls on providing funds and services related, appropriate criminal or civil penalties for violations

## **Domestic control measures**

Physical protection, accounting system, end-user controls, border controls, law enforcement

## **Does not establish lists of items to be control**

But national control lists shall include nuclear, chemical, biological especially designed items and related materials (dual-use items) including their means of delivery

## **Peer review process to evaluate the implementation of the Resolution**

- 1540 Committee (mandate has been renewed for ten years)
- 165 States and the European Union have submitted a report

**The Resolution 1887 (2009)  
Adopted by the Security Council  
on 24 September 2009 (not under  
Chapter VII)**

# Principles

- Reinforce UNSCR 1540 principles
- **Broader field of implementation** concerns *All situation of non-compliance with non-proliferation obligations*

Not limited to Non-State Actors

- Focuses essentially on **nuclear non-proliferation**
- Encourages States to adopt stricter national controls for *the export of sensitive goods and technologies of the nuclear fuel cycle*

Sensitive goods are not defined by the Resolution, therefore could be understood through the NSG understanding : reprocessing, enrichment?

## Introduces “UN criteria/condition of supply”

1. Supplier’s right to require the **return of the items** transferred if safeguards could not be applied

*Supplier shall require as a condition of nuclear exports that the recipient State agree that, in the event that it should **terminate**, withdraw from, or be found by the IAEA Board of Governors to be in non-compliance with its IAEA safeguards agreement, the supplier state would have a **right to require the return** of nuclear material and equipment provided prior to such termination, non-compliance or withdrawal, ...*



## 2. Requiring the **additional protocol**

*Encourages States to consider whether a recipient State has signed and ratified an additional protocol based on the model additional protocol in making nuclear export decisions;*

### 3. Requiring **continuous** safeguards

*Urges States to require as a condition of nuclear exports that the recipient State agree that, in the event that it should terminate its IAEA safeguards agreement, safeguards shall continue with respect to any nuclear material and equipment provided prior to such termination, as well as any special nuclear material produced through the use of such material or equipment;*

# **Export control commitments required by the NPT**

Export of nuclear equipment and technology is essentially **governed by one provision (Article III.2)** :

NPT Parties take a commitment **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 (NNWS) for peaceful purposes, unless the source or special fissionable material shall be subject to the safeguards required by this Article*

# What does it mean ?

Article III.2 establishes **two commitments** to be implemented by the supplier State :

1. To control the transfer to **NNWS** (as defined by article IX.3) of a **undefined list** of items
2. To submit the export of nuclear items to the condition that fissile materials, being used in the facilities where the items are to be transferred, would be submitted to **safeguards**

## Article III as interpreted by NPT Review Conferences (2000, 2010)

**Comprehensive Safeguards Agreement** has been indirectly considered as the one required by article III.2

*... transfer of source or special fissionable material or equipment or material ... to non-nuclear-weapon States should require, as a necessary precondition, acceptance of the comprehensive IAEA safeguards*

**Not yet the Additional Protocol** even if

*...The Conference notes that many States recognize that comprehensive safeguards agreements and additional protocols are among the integral elements of the IAEA safeguards system.*

**- Transferred should not be allowed unless the recipient State has constraint itself with an internationally legally binding commitments not to acquire nuclear weapons or other nuclear explosive devices.**

- Items controlled **do not include nuclear-related dual-use** items **nevertheless** such items : *are relevant to the proliferation of nuclear weapons and therefore to the Treaty as a whole. The Conference calls upon all States parties to ensure that their exports of nuclear-related dual-use items to States not party to the Treaty do not assist any nuclear- weapons programme*



To clarify article III.2 NPT commitments  
some States Parties established an  
informal instrument known as **Zangger  
Committee** (1978)

- Adopted a **list** of materials, equipments  
and technologies (INFCIRC/209)
- Defined that **IAEA safeguards**  
required by Article III of the NPT are  
those defined by the INFCIRC/153 also  
called Comprehensive Safeguards

# **Commitments imposed by the Nuclear Suppliers Group**

**Principal informal instrument** regarding the control of nuclear transfers

Includes all major potential suppliers, except India, Israel and Pakistan

Not an international nuclear export control regime but establishes a **common understanding** of export control principles that each participating State shall introduce into its national export control regime

**Two set of Guidelines** have been adopted:

Guidelines for Nuclear Transfers

Guidelines for Transfers of Nuclear-Related Dual-Use Equipment, Materials, Software, and Related Technology

## **Guidelines for Nuclear Transfers apply to**

- Nuclear **transfers** for peaceful purposes to any non-nuclear weapon State
- Nuclear **retransfers** to any State

## **Guidelines for Transfers of Nuclear-Related Dual-Use Items apply to**

- Dual-use **transfers and retransfers** to any State

# NSG Field of Implementation

## Two control lists

1. Items that are especially **designed or prepared for nuclear use** (trigger list):
  - Nuclear **material**;
  - Nuclear reactors and equipment therefor, non-nuclear material for **reactors**;
  - Plant and equipment for the **reprocessing, enrichment** and conversion of nuclear material and for fuel fabrication and heavy water production and;
  - **Technology** associated with each of the abovementioned items;

**2. Nuclear related dual-use items and technologies** : items that can make a major **contribution** to an unsafeguarded nuclear fuel cycle or **nuclear explosive activity**, but which have as well **non-nuclear uses** in chemical industry ...

**6 categories** : Industrial equipment, Materials, Uranium isotope separation equipment and components, Heavy water production plant related equipment, Test and measurement equipment for the development of nuclear explosive devices, Components for nuclear explosive devices

Since 2008, a fundamental review of the Trigger and Dual-use lists has been initiated

The process is still ongoing and the last Plenary took all ready stock of the work achieved

## **One Catch-all**

Includes only the principle established by the Guidelines and concerns items potentially related to a nuclear explosive activity



5. *Suppliers should ensure that **their national legislation** requires an authorisation for the transfer of items not listed in the Annex if the items in question are or may be intended, in their entirety or in part, for use in connection with a “nuclear explosive activity.”*

*Suppliers will implement such an authorisation requirement in accordance with their domestic licensing practices.*

*Suppliers are encouraged to **share information** on “catch all” denials*

# NSG Export Authorisation

**Fundamental principle : all items of the Trigger and Dual-use lists should be submitted to a national export authorisation**

- Exception** for “sensitive items” defined as  
“usable for nuclear weapons or other  
nuclear explosive devices,”
- Has been reviewed in **June 2011** to  
reinforce the conditions of supply
  - Transfers are not prohibited but suppliers  
“should exercise a policy of restraint ”

In particular, if denials have been  
issued for dual-use items by more  
than one NSG Member State

To allow the transfer of sensitive items the following **criteria should be met** :

- **NPT** Party and is in full compliance with its obligations under the Treaty
- has not been identified in a report by the IAEA Secretariat which is under consideration by the IAEA Board of Governors, as being **in breach of its obligations** to comply with its safeguards agreement....
- has adhering to the NSG Guidelines and has reported to the Security Council of the United Nations that it is implementing **effective export controls** as identified by Security Council Resolution
- has concluded an **inter-governmental agreement** with the supplier including assurances regarding non-explosive use, effective safeguards in perpetuity, and retransfer;

Transfers of **enrichment and reprocessing facility, equipment and technology** are submitted to stricter conditions :

- **Prior** to transfers enrichment or reprocessing facilities, equipment or technology, suppliers should **consult** Participating Governments regarding the **non-proliferation related terms and conditions** applicable to the transfer.

- Requirement of :

*Legally-binding undertaking from the recipient State that neither the transferred facility, nor any facility incorporating such equipment or based on such technology, will be modified or operated for the production of greater than 20% enriched uranium*

- Recipients should be encouraged to accept as an alternative to national enrichment and reprocessing facility **any other appropriate multinational participation** in a resulting facility.

# NSG Export authorisation criteria

## Criteria for nuclear items (trigger list) :

### 1. The non-proliferation principle

Suppliers should authorise the transfer only **when they are satisfied** that it would not contribute to the proliferation of nuclear **weapons** or any other nuclear explosive **devices** or to an act of nuclear **terrorism**

Principle was largely criticised by non-participating States due to its “**subjective**” aspect

## 2. Restrain the transfer of items :

If there are potential **risks of retransfer** due to the **failure** by the recipient State to develop and maintain appropriate, effective national export and transshipment controls as identified by UNSCR 1540



## **NSG criteria for transfers of dual-use items**

- Recipient is **party to the Nuclear Non-Proliferation Treaty (NPT)** or to a similar international legally binding nuclear non-proliferation agreement, and has an **IAEA safeguards agreement in force** applicable to all peaceful nuclear activities;
- Recipient is not **party to the NPT and has facilities** subject or not to IAEA safeguards;

- Items transferred are **appropriate for the stated end use** and whether that stated end use is appropriate for the end-user;
- Items **linked** to reprocessing or enrichment facility;
- Recipient State's **support** of nuclear non-proliferation and **Recipient State's compliance** with its international obligations in the field of non-proliferation;

- Recipients have been engaged in **clandestine** or illegal procurement activities;
- Transfer was not authorised to the end-user or whether the end-user has **diverted** for purposes inconsistent with the Guidelines any transfer **previously** authorised;
- Risk of diversion to acts of nuclear **terrorism**;
- Risks of **retransfer due to the failure** by the Recipient State to develop and maintain appropriate, effective national exports and transshipment controls as identified by **UNSCR 1540**;

# Conditions to authorise the transfer (trigger list)

1. Formal governmental assurances from the recipients explicitly **excluding** any use which would result in any **nuclear explosive device**
2. **Recipient** State should have brought into **force** an agreement with the IAEA requiring the application of **CSA** (not yet the Additional protocol)

**Two complementary formal governmental assurances should be provided by the Recipient State in case of the CSA would be terminated**

1. If CSA should be terminated the Recipient will **bring into force an agreement with the IAEA** requiring the application of safeguards;
2. If the IAEA decides that the application of IAEA safeguards is no longer **possible**, **appropriate verification measures** should be elaborated.

If the Recipient does not accept these measures, it should allow at the request of the Supplier the **restitution** of transferred and derived trigger list items

# Exceptions (nuclear trigger list items)

1. **Grandfather clause:** Supplier's commitments linked to contracts signed before its NSG membership

2. **Safety clause** : transfers to a non-nuclear-weapon State when they are deemed essential for the safe operation of existing facilities and only if safeguards are applied to those facilities
- Should be exceptional
  - Before granting such authorisation Suppliers should inform and, if appropriate, consult in case if they intend to authorise or to deny such transfers

Used twice by Russia in 2001 and 2006

## Other conditions supply (trigger list)

2. Submission of government-to-government assurances requiring **similar export condition** of supply:

- In case of **retransfer** of items originally exported
- In case of transfer of items derived from facilities originally transferred, or with the help of equipment or technology originally transferred by the supplier (**Contamination principle**)

Mechanism similar but not equivalent to the US *De Minimis* Clause



3. Submission of government-to-government assurances that the **prior consent** of the Supplier will be required:

In case of **retransfer or transfer** of items derived from items originally transferred :

- to States which do not require **CSA** as a condition of supply;
- and related to **enrichment, reprocessing, heavy water** production or material usable for **nuclear weapons**.

# Conditions to authorise the transfer (dual-use)

- A statement from the end-user specifying the **use** and the **end use** location of the proposed transfers;
- An assurance explicitly stating that the proposed transfer or any replica thereof will not be used in **any nuclear explosive active** or **unsafeguarded** nuclear fuel cycle activity;

- An assurance that the **prior consent** of the supplier will be required before transferring any dual-use item to a State not adhering to the Guidelines;
- **No undercut principle**: A transfer should not be authorised if an “essentially identical” transfer has been denied by another State without consulting the State that has issued the denial.

# Sanctions (trigger list Guidelines)

**Consultation mechanism** between Participating States in case of doubt on violation of the supplier/recipient understanding of the Guidelines

Explosion of a nuclear device, illegal termination or violation of IAEA safeguards,...

Possibilities to **suspend** transfers of trigger list items to States in breach of their safeguards obligations

The suspension could be decided from the first IAEA investigation in case of suspicion of serious breaches of safeguards obligations

# **The Indian exception: when the exception denies the rule**

Established formally by INFCIRC/734(corrected)

The decision adopted at the extraordinary plenary session of September 6<sup>th</sup>, 2008 authorises NSG States Parties to export to India **trigger list and dual-use items**

At each plenary Participating States have to **notify approved transfers** to India of trigger list items (not dual-use)

Participating States **could** also inform other Participating States of their **bilateral nuclear cooperation agreements** concluded with India

Presently following States have concluded nuclear agreements with India: Argentina, Republic of Korean, USA, France, Russia, Canada, Japan, Kazakhstan

In exchange of an access to nuclear technology,  
India commits itself to:

- **Separate** civilian nuclear facilities from military ones;
- Conclude a **CSA** (including the Additional protocol) with the IAEA for the application of safeguards to civilian nuclear facilities;
- **Abstain** from transfers of enrichment and reprocessing technologies to States that do not have them and **support** international efforts to limit their spread;

- Institute a national **export control system** capable of effective control of multilaterally controlled nuclear and nuclear related items;
- **Harmonise** its export control regime with the Guidelines of the NSG (including adherence to these Guidelines);
- Continue its unilateral **moratorium** on nuclear testing and its readiness to work towards the conclusion of an FMCT



# NPT requirements and India

## India :

- **Not a NPT legally recognised Nuclear Weapons State as defined by Article IX**

No possibility to establish a tailor-made safeguards agreement similar to these applicable to Nuclear Weapons States

China (INFCIRC/369), Russia (INFCIRC/327),  
France (INFCIRC/290), UK (INFCIRC/263),  
USA (INFCIRC/288)

# CSA requirement for any transfer from any NPT State Party

CSA is based on the principle that all nuclear facilities and not only a specific list provided by the end-user shall be submitted to safeguards

Before 1995 transfers to India were authorised if covered by dedicated safeguards agreement (INFCIRC/66)

## UNSCR 1887 requirements and India

2. *Calls upon States Parties to the NPT to comply fully with all their obligations and fulfil their commitments under the Treaty;*
4. *Calls upon all States that **are not Parties to the NPT** to accede to the Treaty as non-nuclear-weapon States so as to achieve its universality at an early date, and pending their accession to the Treaty, to adhere to its terms;*

## To conclude...

*“Consistency is contrary to nature, contrary to life. The only completely consistent people are the dead” (Aldous Huxley)*