



Nuclear Export Control in the European Union

Pr. Dr. Quentin MICHEL

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I. 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)

Derogation : Strictly defined and exceptional
Established by international agreements

Derogations usually based on

- Quotas (steel, cereals, textiles)
- Health protection (food and mouth disease, influenza)
- Protection of cultural goods (national treasure)
- International Security (trade embargos)

Article XXI of the GATT Agreement

Security Exceptions : *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;*

Interpretation

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

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

- **Maximum** : exempts all nuclear trade restrictions

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

International Nuclear Trade Exchanges Principle

The trade principle is overturned

- Principle : Prohibition
- Trade : Exception

All nuclear transfers are submitted to (export) authorisation

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

II. International Nuclear Export Control Regime

What do we have ?

- **Treaty on the Non-Proliferation of Nuclear Weapons**
Cornerstone of the regime
- **UNSC 1540 and 1887**
Calls for the establishment of an efficient national export control regime
- **Nuclear Suppliers Group (NSG):**
 - Guidelines for Nuclear Transfers ([INFCIRC/254/Rev.8/Part.1](#))
 - Guidelines for Transfers of Nuclear-Related Dual-Use Equipment, Materials, Software, and Related Technology ([INFCIRC/254/Rev.7/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**

Export control commitments required by the NPT

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

NPT Parties take the 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 principles** to be implemented by the supplier State :

1. To control the transfer to **NNWS** (as defined by Article IX.3) of a **non-defined 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**

To clarify those commitments some supplier States established an informal instrument known as **NSG** (1978)

- Adopted a **list** of materials, equipments and technologies (INFCIRC/254/Part 1 and 2)
- Defined that **IAEA safeguards** required by Article III of the NPT are those defined by the INFCIRC/153 also called Comprehensive Safeguards

Principles of the EU (Nuclear) Export Control Regime

**Collection of different legally binding and/
or politically binding instruments:**

1. Due to the EU treaties organisation

EC (TFUE) and Euratom Treaties

Except for certain fissile materials,
nuclear items export control is **not**
governed by Euratom

EU Treaty

Foreign Affairs Council (CFSP)

2. Due to the division of competencies between EU Member States and EU/ EC Institutions

Principles and procedures are established by
EU/EC Institutions

Authorisation : mostly decided and granted by
Member States

Consequently the implementation of UN embargoes by
the EU requires **two decisions** due to the EU
treaties organisation

1. **External relations:** non-proliferation concerns : EU
Treaty (CFSP) provisions

Council Common Position 2007/140/CFSP of 27
February 2007 concerning restrictive measures
against Iran (as amended twice in 2008)

2. **External trade:** export policy EC Treaty (common
commercial provisions 133/207)

Council Regulation (EC) No 423/2007 of 19 April
2007 concerning restrictive measures against Iran (as
amended in 2008)

List of legally and politically binding instruments

Legally binding instruments

- Council Regulation 428/2009 of 5 May 2009 setting up a **Community regime** for the **control of exports, transfer, brokering and transit of dual-use items**
- List of Council Regulations adopting **restrictive measures** (embargos) against countries or non-state actors
- Council Regulation (EC) No 423/2007 of 19 April 2007 concerning restrictive measures against **Iran**
- Euratom Treaty (Article 59)
- Council Regulation (EEC) 2913/92 establishing the **Community Custom Code** and in particular its new Section 1A on the **Authorised Economic Operator**
- Council and Parliament Regulation (EC) of March 31 2004 (No 725/2004) regarding the strengthening of **ports safety measures (CSI)** completed by the Directive 2005/65/CE

Politically binding instruments

- Council Joint Action of 22 June 2000 (2000/0401/CFSP) concerning the control of **technical assistance** related to certain military end-uses
- **New lines for action** by the European Union in combating the proliferation of weapons of mass destruction and their delivery systems (Council decision)

Long list of Regulations, Common Positions and Common Actions but one principle to keep in mind :

EU **did not** established a common dual-use items export control regime but had essentially **coordinated/harmonised Member States'** national export control regimes

The specificity of nuclear trade in the EU

Submitted to a dedicated Treaty : Euratom

- First objective was to organise the free movement of certain nuclear items within the EC (Chapter IX):

« *g. ensure wide commercial outlets and access to the best technical facilities by the creation of a common market in specialized materials and equipment, by the free movement of capital for investment in the field of nuclear energy and by freedom of employment for specialists within the Community; »*

The Nuclear Common market

*Member States shall **abolish** between themselves, one year after the entry into force of this Treaty, **all customs duties on imports and exports or charges having equivalent effect, and all quantitative restrictions on imports and exports, in respect of:***

- a. products in List A1 and A2*
- b. products in List B*

List A.1

Uranium ores containing more than 5% by weight of natural uranium
Pitchblende containing more than 5% by weight of natural uranium
Uranium oxide
Inorganic compounds of natural uranium other than uranium oxide
and uranium hexafluoride
Organic compounds of natural uranium
Crude or processed natural uranium
Alloys containing plutonium
Organic or inorganic compounds of uranium enriched in organic or
inorganic compounds or uranium 235
Organic or inorganic compounds or uranium 233
Thorium enriched in uranium 233
Organic or inorganic compounds of plutonium

List A.1

Uranium enriched in plutonium
Uranium enriched in uranium 235
Alloys containing uranium enriched in uranium 235 or uranium 233
Plutonium
Uranium 233
Uranium hexafluoride
Monazite
Thorium ores containing more than 20% by weight of thorium
Urano thorianite containing more than 20% of thorium
Crude or processed thorium
Thorium oxide
Inorganic compounds of thorium other than thorium oxide
Organic compounds of thorium

List A.2

Deuterium and its compounds (including heavy water) in which the ratio of the number of deuterium atoms to normal hydrogen atoms exceeds 1 : 5 000

Heavy paraffin in which the ratio of the number of deuterium atoms to normal hydrogen atoms exceeds 1 : 5 000

Mixtures and solutions in which the ratio of the number of deuterium atoms to normal hydrogen atoms exceeds 1 : 5 000

Nuclear reactors

Equipment for the **separation** of uranium isotopes by gaseous diffusion or other methods

Equipment for the production of deuterium, its compounds (including heavy water) and derivatives, and mixtures or solutions containing deuterium in which the ratio of the number of deuterium atoms to normal hydrogen atoms exceeds 1 : 5 000

Containers with lead radiation shielding for the transport or storage of radioactive material

Artificial radioactive isotopes and their inorganic or organic compounds

Remote controlled mechanical manipulators specially designed for handling highly radioactive substances

List B

Lithium ores and concentrates

Nuclear grade metals

Boron trifluoride

Anhydrous hydrofluoric acid

Chlorine trifluoride

Bromine trifluoride

Lithium hydroxide

Lithium fluoride

Lithium chloride

Lithium hydride

Lithium carbonate

Nuclear grade beryllium oxide

Refractory bricks of nuclear grade beryllium oxide

Other refractory products of nuclear grade beryllium oxide

Artificial graphite in the form of blocks or bars in which the boron content is less than or equal to one part per million and in which the total microscopic thermal neutron absorption cross section is less than or equal to 5 millibarns

List B

Artificially separated stable isotopes
Electromagnetic ion separators, including mass spectrographs and mass spectrometers
Reactor simulators (special analog computers)
Remote controlled mechanical manipulators
Liquid metal pumps
High vacuum pumps
Heat exchangers specially designed for nuclear power stations
Radiation detection instruments (and spare parts) of one of the following types, specially designed, or adaptable, for the detection of measurement of nuclear radiation, such as alpha and beta particles, gamma rays, neutrons and protons
Cyclotrons, Van de Graaff or Cockcroft Walton electrostatic generators, linear accelerators and other machines capable of imparting an energy greater than 1 MeV to nuclear particles

List B

Magnets specially designed and constructed for the abovementioned machines and equipment (cyclotrons etc.)
Accelerating and focusing tubes of the type used in mass spectrometers and mass spectrographs
Intense electronic sources of positive ions intended for use with particle accelerators, mass spectrometers and similar devices
Airtight clothing affording protection against radiation or radioactive contamination
Diphenyl (when it is in fact the aromatic hydrocarbon $C_6H_5C_6H_5$)
Terphenyl

Since 1957

Nuclear Common market has been informally **diluted** in the Common market established by the Single European Act (1986) and **excluded** indirectly by the first set of EC export control instruments (Regulation 3381/94 and Common Action 94/942)

Presently essentially (if not exclusively only) ruled by Regulation **428/2009**

Nevertheless, certain exports of nuclear materials are still submitted to Chapter VI of the Euratom Treaty

Article 57

*Every **producer shall offer** to the (Supply) Agency the ores, source materials or special fissile materials which he **produces** within the territories of Member States*

Defined by Article 192:

- 1. 'Special fissile materials' means plutonium 239; uranium 233; uranium enriched in uranium 235 or uranium 233; and any substance containing one or more of the foregoing isotopes and such other fissile materials as may be specified by the Council, acting by a qualified majority on a proposal from the Commission; the expression special fissile materials' does not, however, include source materials*

Article 59

If the Agency does not exercise its right of option on the whole or any part of the output of a producer, the latter: (...)

*b. shall be **authorized** by a **decision of the Commission** to dispose of his **available production outside the Community**, provided that the terms he offers are not more favourable than those previously offered to the Agency. However, **special fissile materials may be exported only through the Agency and in accordance with the provisions of Article 62***

*The **Commission may not grant such authorization** if the recipients of the supplies fail to satisfy it that the **general interests of the Community** will be safeguarded or if the terms and conditions of such contracts are **contrary to the objectives of this Treaty***

«*available production*» ?

Concerns only the Community production

- Uranium mined or enriched in the Community and plutonium irradiated in a reactor in the Community
- Operation of conversion, reprocessing in the Community, along with any other transit or storage of material in the Community **are in principle not considered as Community production**

« *General interests of the Community* » ?

- Non-proliferation assessment of the proposed export
- Should normally consider NPT, NSG and other Community and Member States international commitments

How Indian exports might be considered ?

But strictly speaking dual-use items export control is mostly organised by two following instruments

1. Council Regulation 428/2009 of 5 May 2009 setting up a **Community regime for the control of exports, transfer, brokering and transit of dual-use items**
2. Council Joint Action of 22 June 2000 (2000/0401/CFSP) concerning the control of **technical assistance** related to certain military end-uses

1. Definition of dual-use items

Article 2(a) includes

- All goods which can be used for both **civil and military** purposes;
Not necessary limited to WMD
- All goods that can be employed for both non-explosive uses and assisting in any way in the manufacture of **nuclear weapons** or other nuclear explosive devices
Element added in 2000 to conform with the definition of NSG dual-use items : items for which the transfer will not trigger the application of safeguards
- Concerns equipments, materials, tangible and intangible technologies

2. Items covered by the Regulation

- Establishment of **one** list of dual-use items requiring export **or** transfer authorisation
 - Specific system of references (9 categories)
- First international **compilation** of the various lists of 5 International Export Control Regimes
 - Wassenaar Arrangement, MTCR, NSG, Australia Group and CWC
 - Not all EU MS are members of all regimes (Wassenaar Arrangement: Cyprus
 - MTCR: Cyprus, Estonia, Latvia, Lithuania, Malta, Slovenia, Slovakia and Romania)

- The list should be considered **exhaustive and compulsory** for Member States
 - Does not grant space for Member State's appreciation or interpretation if an item should be submitted or not to authorisation
- The Regulation does not apply to **the supply of services or the transmission of technology** if that supply or transmission involves cross-border movement of persons
 - Ruled by the Joint Action (CFSP instrument)

3. Items not listed potentially covered by the EU Regulation

A. Not listed items can be controlled by Member States on the basis of **catch-all clause** implementation

Two of them are compulsory for Member States' Authorities

1. Member States' Authorities require, through a **notification to exporters**, an export authorisation for an item not listed if there is risk that this item might be used in weapons of mass destruction program
2. **Obligation** for the exporter to **notify** to his National Authorities if he is **aware** that an item he intends to export will contribute to the elaboration of weapons of mass destruction

One is optional for Member States' Authorities (adopted by 16 MS)

“**Suspicion clause**”, establishes the **possibility** for EU Member States to impose an export authorisation if the **exporter has grounds for suspecting** that the item not listed he intends to export, will contribute to the elaboration of weapons of mass destruction

B. Possibility for **MS to prohibit or impose** an authorisation requirement for not listed dual-use items for reasons of **public security or human rights considerations** (Article 8)

Implemented by France, Germany, United Kingdom and Latvia

4. Transfers concerned by the EU Export Control Regime

The Regulation considers two different operations :

1. Dual-use items transferred to an end-user established outside of the EU

Export, external transit and brokering activities

2. Dual-use items transferred to an end-user established in another MS

Intra-community trade

4.1. Dual-use items transferred to an end-user established outside of the EU

Export shall mean:

- (i) *an export procedure within the meaning of Article 161 of Regulation (EEC) No 2913/92 (the Community Customs Code);*
- (ii) *a re-export within the meaning of Article 182 of that Code but not including items in transit and*

*(iii) **transmission of software or technology** by electronic media, including by fax, telephone, electronic mail or **any other electronic means** to a destination outside the European Community; it includes making available in an electronic form such software and technology to legal and natural persons and partnerships **outside the Community**. Export also applies to oral transmission of technology when the technology is described over the telephone;*

Who is the exporter ?

Defined the MS who will analyse the export application and who might issued the authorisation

"exporter" shall mean any natural or legal person or partnership:

- On whose behalf an export declaration is made
- Holds the contract with the consignee
- If no export contract the person who has the power for determining the sending of the item out of the customs territory of the Community;
- **Decides** to transmit or make available software or technology by **any other electronic means to a destination outside the Community.**

External Transit: possibility to control

- Decided **individually** by MS Authorities
- Only **certain transit operations** might be submitted to prohibition or to export authorisation
- **Dual conditions:** listed items (Annex 1) and if it does or may contribute to WMD

- Could be **extended** to non-listed items and to listed dual-use items intended for military end-use or for countries under embargoes
- **Territorial validity limited**
The authorisation/prohibition is valid only for the Member State who has decided or issued it
- **No coordination** of Member States' policies, except if a denial has been issued

Consultation mechanism

Brokering: possibility to submit to authorisation

- **Brokering services** : the selling, buying, **negotiation** or arrangement of transactions for supply of dual-use items from a third country to any other third country
- Authorisation **granted** by MS authorities
- Authorisations shall be **valid throughout the Community**.
- Authorisation requirement for brokering services and **not to exercise** brokering activities

Authorisation will be required if

- the broker has been informed by his authorities that **listed** items must be submitted to authorisation
- the broker is aware that the **listed** items...

Possibilities for Member States to **extend an authorisation requirement** for brokering services

- to **non-listed** items
- in case the **broker has grounds for suspecting that listed and non listed items...**

4.2. Dual-use items transferred to an end-user established in another MS

- Intra-community transfers
- Concern only dual-use items considered as more **sensitive** in terms of potential contribution to the elaboration of weapons of mass destruction (Items are listed in Annex IV)

Most NSG items are covered by Annex IV

- **Possibilities** for Member States to control items not listed in Annex IV

France (cryptography), Germany (helicopters) and United Kingdom

5. Transfers not ruled by the Regulation

Import

Import authorisation could be required unilaterally by a Member State

Counterproductive measure which could be easily countered by importing the item through another Member State

6. Authorisations established by the Regulation

Export authorisation granted by Member State

- Principle of **mutual recognition** of authorisation granted by each Member State

Harmonisation of documents has been initiated: Model for Individual or Global Export authorisation, End-User Certificates

Three types of authorisations

Individual authorisation is granted to one specific exporter for one end-user covering a number of items (one or several);

Global authorisation, also called open individual licence, is granted to one specific exporter in respect of a type or category of dual-use items which may be valid for exports to one or more specified countries;

National **general** authorisation is valid for all national exporters to one or several specified countries covering a number of determined items.

One authorisation granted directly by the EU Export Control Regime

- Community General Export Authorisation (CGEA)
- No complementary MS authorisation is necessary

Not fully respected by MS

- Valid for a defined list of items to the following destinations:

Australia, Canada, United States of America, Japan, Norway, New-Zealand, Switzerland

- Discussion has been initiated to **increase** the number of CGEA

Low value shipments, export after repair, temporary export for exhibition, certain categories of items (chemicals, computers, telecommunication and information)

7. Conditions and Criteria

- **No conditions** defined
- Establishment of common **criteria** to be considered by MS when granting or not the authorisation (Article 12):
 1. Commitments and obligations taken in the relevant **international non-proliferation regimes**
 2. Obligations under **sanctions imposed** by the CFSP, OSCE or a binding resolution of UN Security Council
 3. Consideration of **national foreign and security policies**, including those covered by the European Union Code of Conduct on Arms Exports
 4. Consideration of intended **end-use and risk of diversion**

8. Exchange of information and no-undercut mechanism ‘article 13)

Before a Member State grants an authorisation for export or brokering services or decide on a transit it shall **examine all valid denials or decisions to prohibit a transit**

Consultation required with the one who issued the denial for **an essentially identical transaction**

Concerns all denials including catch-all ones, however it does not extend the implementation field of the MS catch-all clause to other MS

Decision of the consulted Member State **is not legally binding**

Not to be mixed up with the consultation requirement established by Article 11

Concerns authorisation when the dual-use items are or **will be located** in one or more **Member States other than the one where the application** has been made.

Obligation of consultation between the Member State responsible for issuing the licence (the one where the exporter is established) and the Member State where the item is or will be located

Alters the principle of EU validity of a licence granted by another Member State

Obligation concerns **only a limited number of items** submitted to individual licences:

- all items of Annex IV for any destination
- all items of Annex I for a destination other than Australia, Canada, United States of America, Japan, Norway, New Zealand, Switzerland (Part 3 of Annex II)

Obligation is limited to individual authorisations (not global or national general)

Decision of the consulted Member State **delineates** the decision of the Member State where the application has been made

A negative answer imposes the denial of the authorisation

The Council Joint Action of 22 June 2000 (2000/0401/CFSP) concerning the control of technical assistance related to certain military end-uses

Principles

- Not a Regulation : a Council **Joint Action**
- **Intergovernmental** cooperation instrument set up by the Treaty on European Union (EU Treaty)
Not EU legislation
Role of the Court of Justice is limited
- To enter into force, it has to be **transposed** by Member States into their national legislations
- No **formal link** with the Dual-Use Regulation
Negotiated and adopted at the same time
Considered as “package deal”

Controlling exports of Technical Assistance

(a) *"technical assistance" means any **technical support** related to repairs, development, manufacture, assembly, testing, maintenance, or any other technical service, and **may take forms** such as instruction, training, transmission of working knowledge or skills or consulting services;*

Controlling the movement of persons

(b) *"technical assistance" includes **oral forms** of assistance;*

Other forms than these mentioned above ?

Related to export control regimes

Technical Assistance related to the "*international export control regimes, bodies and treaties*" has to be understood as *the Australia Group, Missile Technology Control Regime, Nuclear Suppliers Group, Wassenaar Arrangement, Zangger Committee and the Chemical Weapons Convention.*

WMD and certain military items (Munition list of the WA)

Transactions to be controlled

Two kinds of transactions:

*where it is provided **outside** the European Community by a natural or legal person established in the European Community and is **intended**, or the **provider is aware** that it is intended, for use in connection with WMD*

Drafted like a catch-all clause but it is not a catch all clause

Where it is related to **military end-uses** and is **provided** in *countries of destination subject to an arms embargo decided by a common position or joint action adopted by the Council or a decision of the OSCE or an arms embargo imposed by a binding resolution of the Security Council of the United Nations.*

Exceptions

Article 2 does not apply to the "**technical assistance**":

(a) where it is provided in a **country listed in Part 3 of Annex II** to Regulation (EC) No 1334/2000:

Australia, Canada, United States of America, Japan, Norway, New-Zealand, Switzerland

(b) where it takes the form of transfer of information that is "in the **public domain**" or "**basic scientific research**" as these terms are respectively **defined** in international export control regimes, bodies and treaties; or

(c) where it is in **oral form** and **not related to items** required to be controlled by one or more of the international export control regimes, bodies and treaties.

Not related to Annex I of the Dual-Use Regulation, direct reference to the lists established by international export control regimes

To conclude...

“Who wants to be consistent? The dullards and the doctrinaire, the tedious people who carry out their principles to the bitter end of action, to the reductio ad absurdum of practice. Not I” (Oscar Wilde)