



*The Abdus Salam
International Centre for Theoretical Physics*



2257-47

Joint ICTP-IAEA School of Nuclear Energy Management

8 - 26 August 2011

Overview of the Nuclear Non-proliferation Regime

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EXPORT CONTROLS

IONUT SUSEANU
OFFICE OF LEGAL AFFAIRS

IAEA-ICTP
School of Nuclear Energy Management
Trieste, 15 August 2011



IAEA

International Atomic Energy Agency

Why Export Controls?

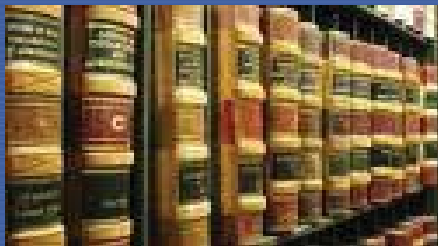
- **Provide early indications of proliferation**
- **Force proliferators to accept more costly options**
- **Prevent or delay proliferation activities**
- **Facilitate a transparent nuclear trade**
- **Allow supplier States to take position on nuclear non-proliferation**
- **Provide national legal framework for sanctions**

Concept



- Part of global efforts to prevent proliferation
- Facilitate international trade for peaceful purposes
- Undertakings deriving from international agreements and arrangements
- Implemented through national legislation

Origins and Evolution



- COCOM export controls during Cold War
- Multilateral non-proliferation treaties
- Export control arrangements
- UN Security Council decisions



National policies and legislation

Multilateral Treaties



NPT **NWFZ TREATIES**

Tlatelolco
Rarotonga
Bangkok
Central Asia
Pelindaba



CWC and BWC



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NPT Requirements

All States Parties

Art.III.2 - not to provide source or special fissionable material, or equipment or material “especially designed or prepared” (EDP) for the processing, use or production of special fissionable material to any NNWS, unless subject to IAEA safeguards

NPT Requirements

All States Parties

Art.IV.2 - undertake to facilitate and have the right to participate in the fullest possible exchange of equipment, materials and scientific and technological information for the peaceful uses of nuclear energy

NPT Review Conferences

Principles and Objectives (1995)

- Supply arrangements for transfer of nuclear material and EDP to NNWSs should require IAEA full-scope safeguards

Final Document (2000)

- Transfer of nuclear-related equipment, information, material and facilities consistent with NPT

Final Document (2010)

- National regulations to give effect to States commitments regarding transfer of nuclear and nuclear-related dual-use items
- States parties to make use of multilaterally negotiated and agreed guidelines and understandings in developing their own national export controls (**Action 36**)

NWFZ Treaties Requirements

- **Tlatelolco** (Latin America and Caribbean)
 - Control system to verify that no prohibited activities are carried out with nuclear materials from abroad (**Art.13**)
- **Rarotonga** (South Pacific)
 - Not to provide nuclear material and EDP to any NNWS or NWS unless subject to IAEA safeguards (**Art. 4**)
- **Bangkok** (Southeast Asia)
 - Not to provide nuclear material and EDP to any NNWS or NWS unless subject to IAEA safeguards (**Art. 4**)
- **Central Asia** (Five States in Central Asia)
 - Not to provide nuclear material and EDP to any NNWS unless it concluded a CSA and AP with IAEA (**Art.8.c**)
- **Pelindaba** (Africa)
 - Not to provide nuclear material and EDP to any NNWS unless subject to a CSA concluded with IAEA (**Art. 9.c**)

Export Controls Arrangements



Zangger Committee

Nuclear material and EDP

Nuclear Suppliers Group

Nuclear and dual-use

Australia Group

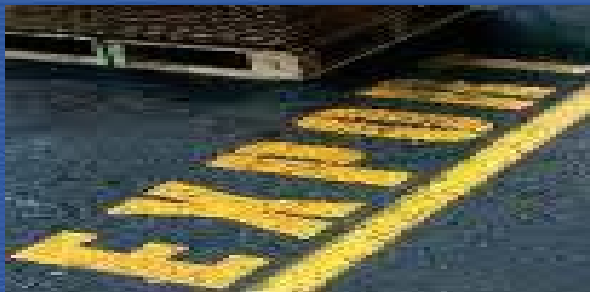
BW and CW related material and equipment

Missile Technology Control Regime

Ballistic missiles and other systems

Wassenaar Arrangement

Military goods and dual-use items



Zangger Committee

- **NPT Exporters Committee (1971)**
Common Understandings (1974): Art. III.2 of NPT
 - Memorandum A: Nuclear Material
 - Memorandum B: **Trigger List** (equipment and non-nuclear material)
- “Rules of the game”: **unilateral arrangements** by Member States on export conditions and procedures (INFCIRC/209 Series)
- Annual exchange of information on **exports** to NNWS

INFCIRC/209



International Atomic Energy Agency

INFORMATION CIRCULAR

INF

INFCIRC/209/Rev.1/Add.3
April 1994

GENERAL Distr.
ENGLISH
Original: ENGLISH, FRENCH,
RUSSIAN and SPANISH

COMMUNICATIONS RECEIVED FROM MEMBERS REGARDING THE EXPORT OF NUCLEAR MATERIAL AND OF CERTAIN CATEGORIES OF EQUIPMENT AND OTHER MATERIAL

1. The Director General has received a letter dated 7 October 1993 from the Permanent Mission of Bulgaria, letters dated 8 October 1993 from the Permanent Missions of Australia, Austria, Canada, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Japan, Luxembourg, the Netherlands, Norway, Portugal, the Russian Federation, Spain, Sweden, the United Kingdom of Great Britain and Northern Ireland, the United States of America, and a letter dated 11 October 1993 from the Permanent Mission of Poland to the International Atomic Energy Agency concerning the export of nuclear material and of certain categories of equipment and other material.

2. In the light of the wish expressed at the end of each letter, the text of the letters is attached hereto.

94-01184



IAEA

Nuclear Suppliers Group

- **Non NPT** export control arrangement (1974)
(46 Member States)
- **Guidelines** for Nuclear Transfers (1978):
 - Fundamental principles for safeguards and export controls
 - **Trigger List** – nuclear material, equipment and non-nuclear materials (INFCIRC/254/Part 1 – 1978)
 - **Dual-Use List** - nuclear-related dual-use equipment and materials and related technology (INFCIRC/254/Part 2 - 1992)
 - Guidelines are periodically updated
- Policy on **full scope safeguards** as condition of nuclear supplies
 - Common safeguards requirements reconsider when appropriate

INFCIRC/254



Information Circular

INFCIRC/254/Rev.9/Part 1^a
Date: 7 November 2007

General Distribution
Original: English

Communication Received from the Permanent Mission of Brazil regarding Certain Member States' Guidelines for the Export of Nuclear Material, Equipment and Technology

1. The Agency has received a Note Verbale from the Permanent Mission of Brazil, dated 22 March 2007, in which it requests that the Agency circulate to all Member States a letter of 12 December 2006 from the Chairman of the Nuclear Suppliers Group, Ambassador José Artur Denot Medeiros, to the Director General, on behalf of the Governments of Argentina, Australia, Austria, Belarus, Belgium, Brazil, Bulgaria, Canada, China, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Japan, Kazakhstan, Republic of Korea, Latvia, Lithuania, Luxembourg, Malta, Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Russian Federation, Slovakia, Slovenia, South Africa, Spain, Sweden, Switzerland, Turkey, Ukraine, the United Kingdom of Great Britain and Northern Ireland and the United States of America, providing further information on those Governments' Guidelines for Nuclear Transfers^b.

2. In the light of the wish expressed in the above-mentioned Note Verbale, the text of the Note Verbale, as well as the letter and attachment thereto, are hereby reproduced for the information of all Member States.

^a INFCIRC/254/Part 2, as amended, contains Guidelines for Transfers of Nuclear-Related Dual-Use Equipment, Materials, Software and Related Technology.

^b The European Commission participates as an observer.



Information Circular

INFCIRC/254/Rev.8/Part 2^a
Date: 30 June 2010

General Distribution
Original: English

Communication Received from Certain Member States Regarding Guidelines for Transfers of Nuclear-related Dual-use Equipment, Material, Software and Related Technology

1. The Agency has received a Note Verbale from the Permanent Mission of Hungary, dated 14 June 2010, in which it requests that the Agency circulate to all Member States a letter of 7 May 2010 from the Chairman of the Nuclear Suppliers Group, Ambassador Ms. Györgyi Martin Zanathy, to the Director General, on behalf of the Governments of Argentina, Australia, Austria, Belarus, Belgium, Brazil, Bulgaria, Canada, China, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Kazakhstan, Republic of Korea, Latvia, Lithuania, Luxembourg, Malta, Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Russian Federation, Slovakia, Slovenia, South Africa, Spain, Sweden, Switzerland, Turkey, Ukraine, the United Kingdom of Great Britain and Northern Ireland and the United States of America,¹ providing further information on those Governments' Guidelines for Nuclear Transfers.

2. In the light of the wish expressed in the above-mentioned Note Verbale, the text of the Note Verbale, as well as the letter and attachments thereto, are hereby reproduced for the information of all Member States.

^a INFCIRC/254/Part 1, as amended, contains Guidelines for the export of nuclear material, equipment and technology.

¹ The European Commission participates as an observer.



Security Council Decisions

- **UNSC Summit 1992**
 - SC underlined the importance of export controls
- **Resolution 1540 (2004)**
 - Requires all States to establish, develop, review and maintain appropriate effective national export and trans-shipment controls and border controls (OP 3)
- **Resolution 1887 (2009)**
 - Calls upon States to adopt stricter national controls for export of sensitive goods and technologies of nuclear fuel cycle (OP 13)
 - Urges States to take national measures to strengthen export controls (OP 27)

IAEA Safeguards Agreements

IAEA safeguards do not require export controls

BUT

**Implementation of safeguards depends on
effective national export control system**

IAEA Safeguards Agreements

- Item Specific (INFCIRC/66/Rev.2)
 - Safeguards system prior to the NPT
- Comprehensive Safeguards Agreements (CSAs)
INFCIRC/153 (Corr.)
 - Comprehensive safeguards in connection with the NPT and NWFZ Treaties
 - May include “Small Quantities Protocol”
- Voluntary Offer Agreements (VOAs)
 - NPT NWSs
- Additional Protocols

INFCIRC/66: Transfer out of State

Reporting Requirements:

- No safeguarded nuclear material can be transferred outside the jurisdiction of the State until IAEA has satisfied itself that certain conditions apply:
 - Nuclear material has been returned to the supplier State
 - Substitution arrangements are in place if the material is transferred for reprocessing
 - Material was not subject to safeguards pursuant to a project agreement

INFCIRC/153: Exports and Imports

Reporting Requirements:

- Quantity, composition and destination: **any material containing uranium or thorium** exported to NNWSs, unless exported for specifically non-nuclear purposes (Para. 34(a))
- Quantity and composition of **any material containing uranium or thorium** imported, unless imported for specifically non-nuclear purposes (Para. 34(b))
- Other safeguards procedures: imported **nuclear material** (Para. 34(c))

INFCIRC/153: Transfers out of State

- **Notification to IAEA of intended transfer of nuclear material out of the State (Para. 92-94)**
 - **When?** After conclusion of contractual arrangements and at least 2 weeks before shipment
 - **What?** Expected quantity and composition and originating MBA, date and location of shipment, date of dispatch and arrival, transfer of responsibility to recipient State
 - **Why?** To enable IAEA to verify the material before shipment

INFCIRC/153: Transfers into State

- **Notification to IAEA of expected transfer of nuclear material into the State (Para. 95-96)**
 - **When?** In advance but not later than when recipient State assumes responsibility
 - **What?** Identification, expected quantity and composition, expected date of arrival, delivery location, unpacking date, transfer of responsibility to recipient State
 - **Why?** To enable IAEA to identify and verify the material transferred into the State

SQP: Exports and Imports

Reporting requirements:

- Information under Para. 34 (a) and (b) of INFCIRC/153
- Import and export of nuclear material - 34(c) material
- Information may be consolidated and submitted in an annual report to IAEA

Strengthening IAEA Safeguards

- **Programme 93+2**
 - **Part I** measures – other measures possible within existing legal authority (INFCIRC/153)
 - **Part II** measures – those requiring additional legal authority (INFCIRC/540)
 - Voluntary Reporting Scheme (GOV/2629)

Voluntary Reporting Scheme

- Endorsed by BOG in February 1993 (GOV/2629)
- **Scheme for reporting of exports, imports and production of nuclear material, and exports and imports of specified equipment and non-nuclear material**
- Supplemental information to Agency (beyond what is required under SG agreements)
- Aims to increase transparency of States' nuclear programmes
- Enables IAEA to cross-check information from exporters and importers
- VRS↓when AP↑

INFCIRC/540: Exports and Imports

Reporting requirements:

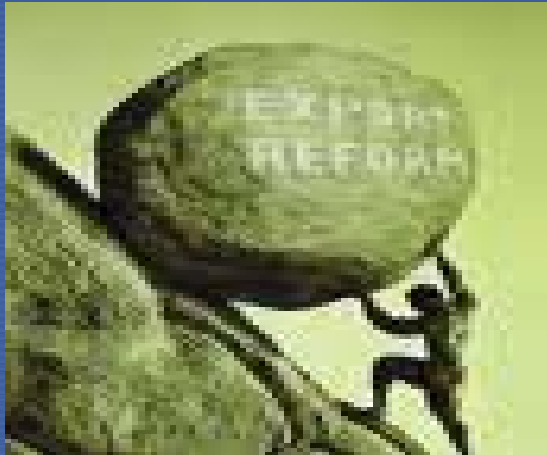
- Source material of a composition and purity not suitable for enrichment or fuel fabrication (Art. 2.a.(vi))
 - Exports: quantities, composition and destination of each export for specifically non-nuclear purposes (Art. 2.a.(vi)(b))
 - Imports: quantities, composition, intended use of each import for specifically non-nuclear purposes (Art. 2.a.(vi)(b))

INFCIRC/540 : Exports and Imports

Reporting requirements:

- Exports of specified equipment and non-nuclear material listed in Annex II and confirmation of imports upon IAEA request (*Art. 2.a.(ix)*):
 - Reactors and equipment
 - Non-nuclear materials for reactors
 - Reprocessing plants and EDP
 - Fuel fabrication plants
 - Enrichment plants and EDP
 - Heavy water production plants and EDP
 - Conversion plants and EDP
- **INFCIRC/540 Annex II is consistent with ZC Trigger List and NSG Part 1**

What is Needed to Implement Export Controls?



- **Legislation and regulations**
- Legal framework consistent with State's international obligations
- **National authority** established and with adequate:
 - Regulatory, licensing and enforcement functions
 - Cooperation with national and international institutions (e.g. Customs, law enforcement agencies)
 - Human resources and financial resources

Export Control Legislation

Elements:

- Objectives
- Prohibition of unauthorized transfers
- National Export Control Authority
- Authorization (licensing) procedures and criteria for exports and imports
- Control lists
- Enforcement and penalties

IAEA Legislative Assistance

IAEA has established a legislative assistance programme available to all Member States

OLA has provided legislative assistance to more than 100 Member States

The programme covers all areas: nuclear safety, civil liability, nuclear security, and safeguards, including export and import controls