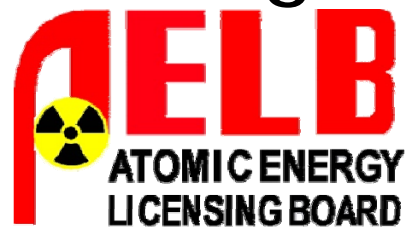




Additional Protocol to the Safeguards Agreement



Marina Mishar

Atomic Energy Licensing Board

CONTENT

- Origin of Additional Protocol
- Commitments Under Additional Protocol
- Status of Additional Protocol

NPT OBJECTIVES

Treaty on the Non-Proliferation of Nuclear Weapons

- to prevent the spread of nuclear weapons and weapons technology
- to promote co-operation in the peaceful uses of nuclear energy
- to further the goal of achieving nuclear disarmament and general and complete disarmament.

NPT STATUS

Opens for Signature on 1 July 1968

Enters into Force on 5 March 1970

Current Status : 188 member states

Except Israel, India, Pakistan

Malaysia's Status

Signed on 1 July 1968

Enters into Force on 3 May 1970

UN Security Council Resolution 255 (1968)

NPT Content

I – Not to transfer,
assist, encourage or
induce

II – Not to receive,
manufacture or
acquire

Safeguards
Agreement



III – Accept Safeguards

IV – Peaceful Uses of
Nuclear Energy

V – Benefits of nuclear
technology

VI – Nuclear Disarmament

VII – Regional Treaty

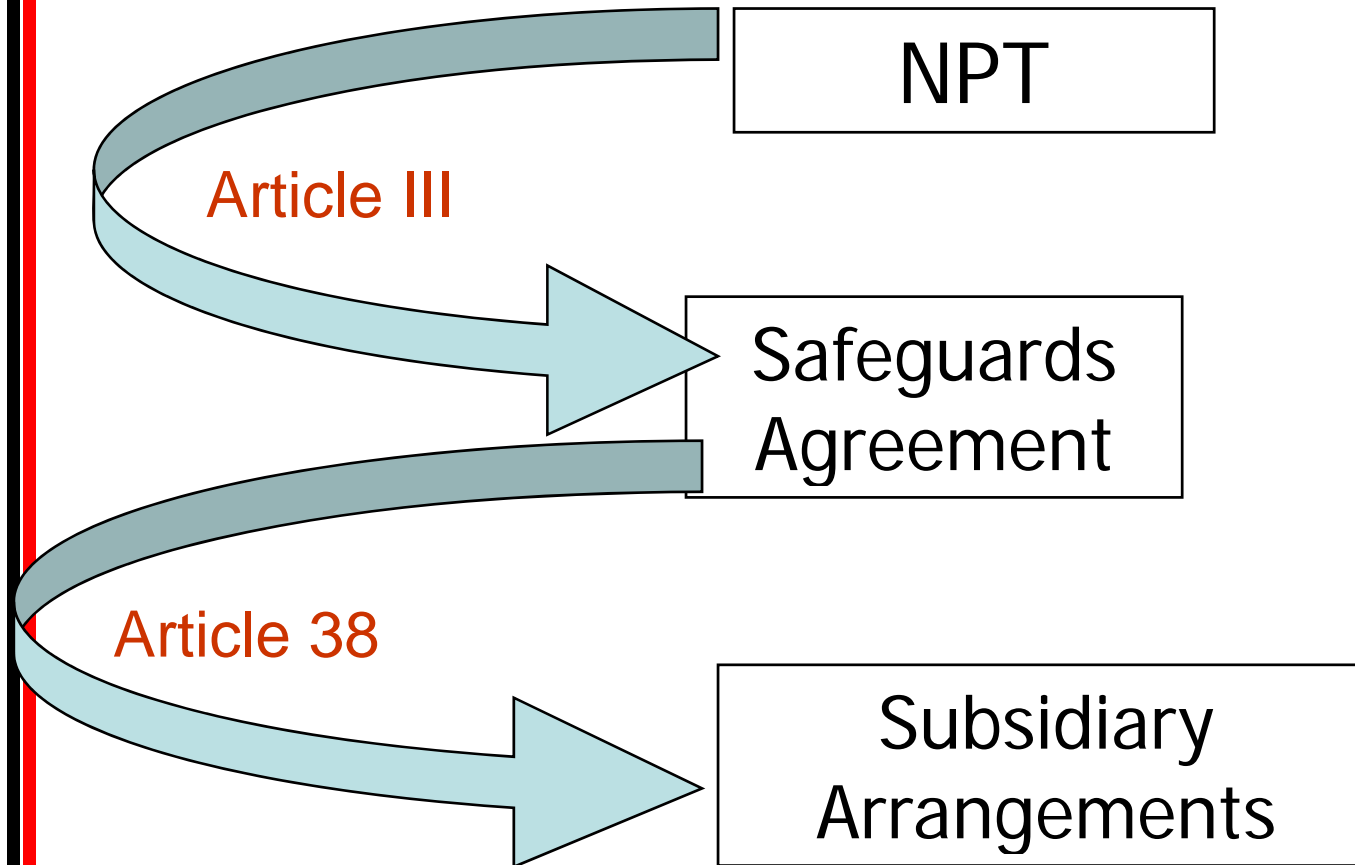
VIII – Proposal of
Amendments; Review
every 5 years

IX – Open for Signature &
Entry into Force;
Definition of “Nuclear
Weapon State
(<1/1/1967)”

X – Sovereign rights to
Withdraw; Extensions

XI – Copies of Treaty

SAFEGUARDS SYSTEM



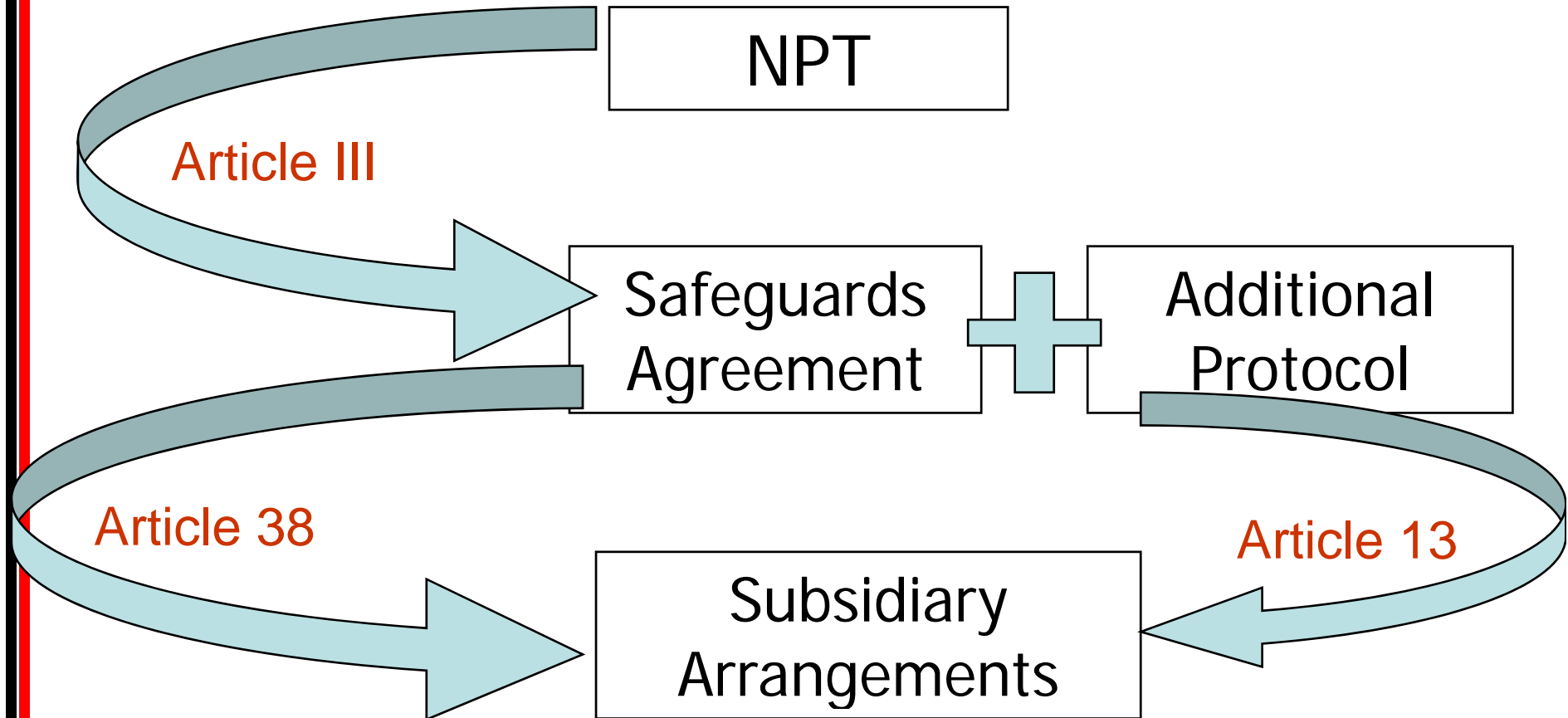
Origin of Additional Protocol

- Clandestine Nuclear Weapon Development Program by Iraq discovered
- Model Additional Protocol negotiated by IAEA Secretariat to strengthen the Safeguards system
- Broaden IAEA access to both declared and undeclared activities

Additional Protocol

- 15 May 1997 : IAEA Board of Governors adopted a Model Additional Protocol
- 6 June 1997 : IAEA invited the Malaysian Government to adopt the Additional protocol
- 22 September 2005 : Malaysian Government signed the Additional Protocol

SAFEGUARDS SYSTEM



Scope/Subject Activities

- Public and private nuclear fuel cycle-related R&D **not** involving nuclear material
- Manufacturing, assembly or construction of nuclear **fuel cycle-related equipment** and **non-nuclear** material
- Uranium and Thorium mines and thorium concentration plans
- Source material holdings and import/exports

Scope/Subject Activities ... cont

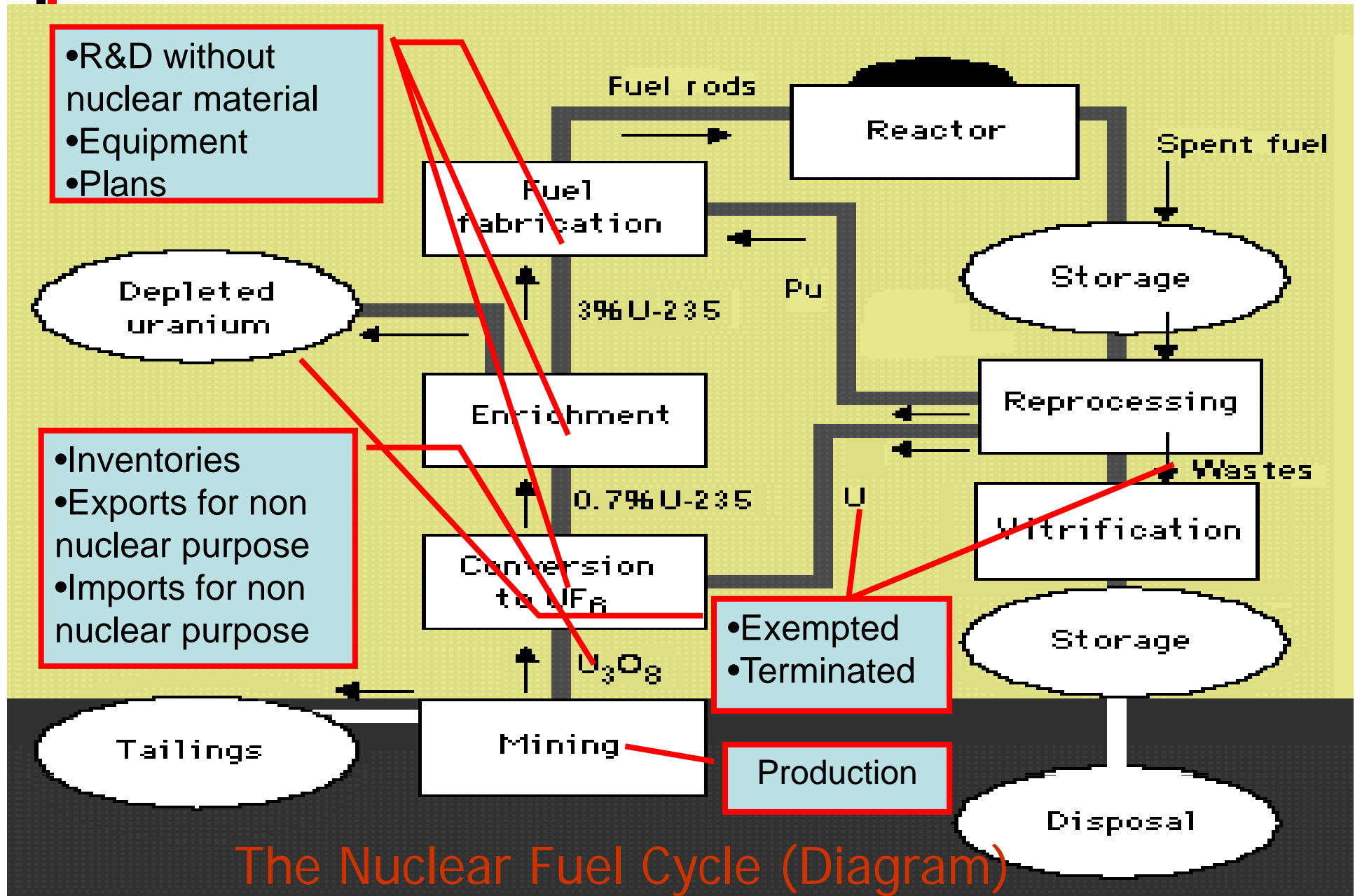
- **Non-nuclear, non-safeguarded** waste processing
- Import and export of **non-nuclear** equipment and material, and
- Plans for development of the nuclear fuel cycle in Malaysia

COMMITMENTS UNDER ADDITIONAL PROTOCOL

- Additional information
- Broader access
- Administrative measures



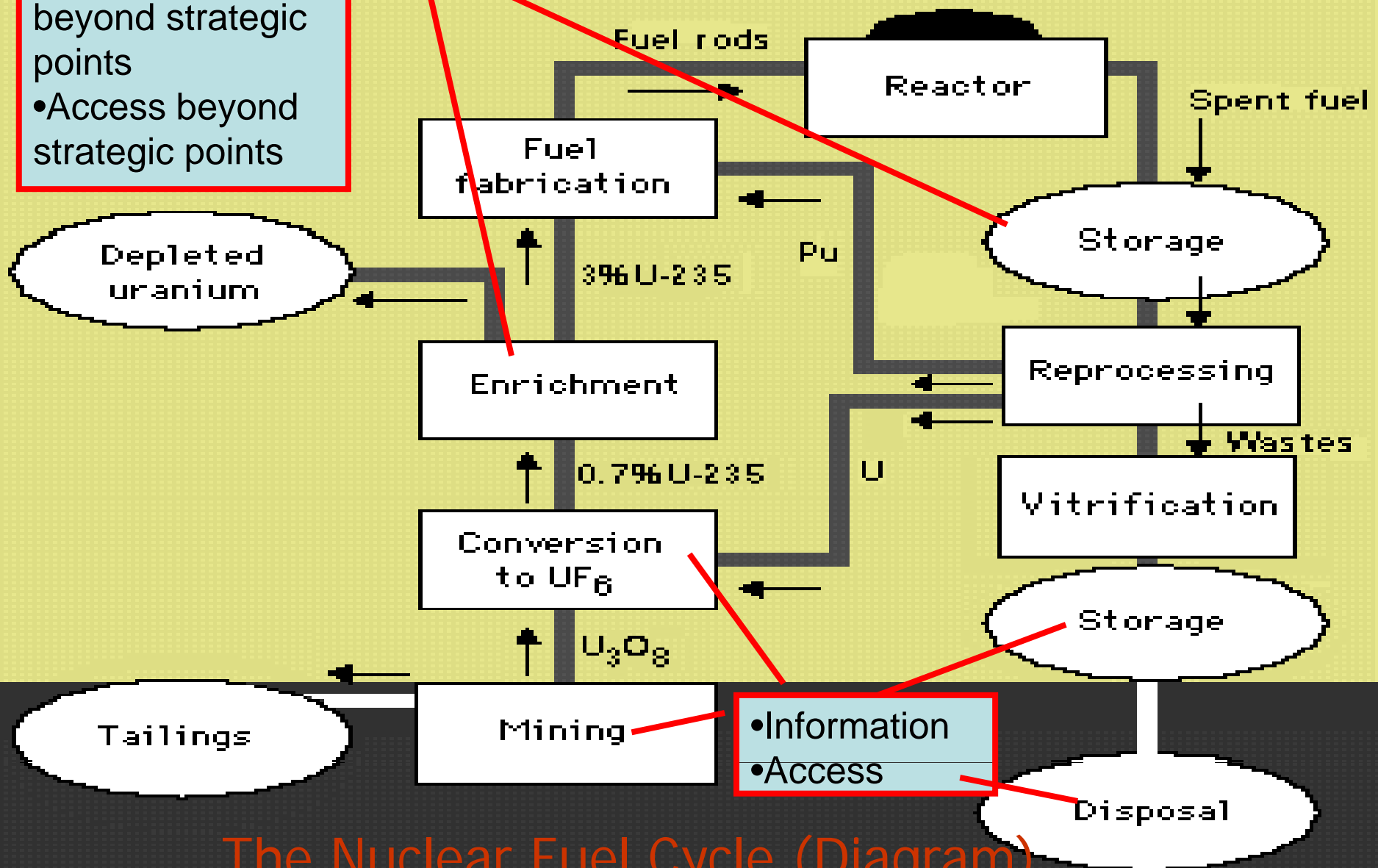
1. ADDITIONAL INFORMATION



The Nuclear Fuel Cycle (Diagram)

2. BROADER ACCESS

- Information beyond strategic points
- Access beyond strategic points



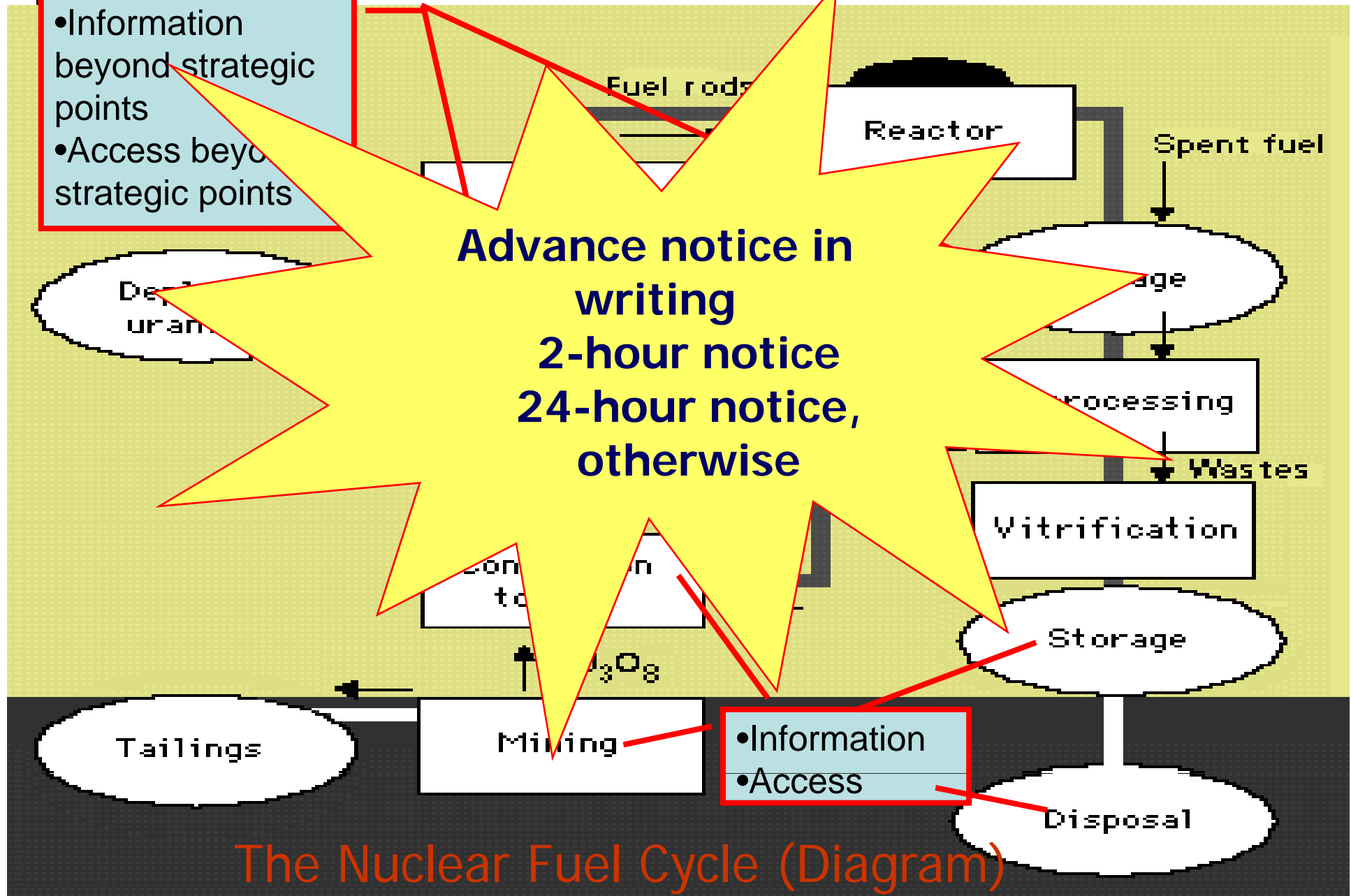
The Nuclear Fuel Cycle (Diagram)

2. BROADER ACCESS

- Information beyond strategic points
- Access beyond strategic points

Advance notice in writing
2-hour notice
24-hour notice, otherwise

- Information
- Access



The Nuclear Fuel Cycle (Diagram)

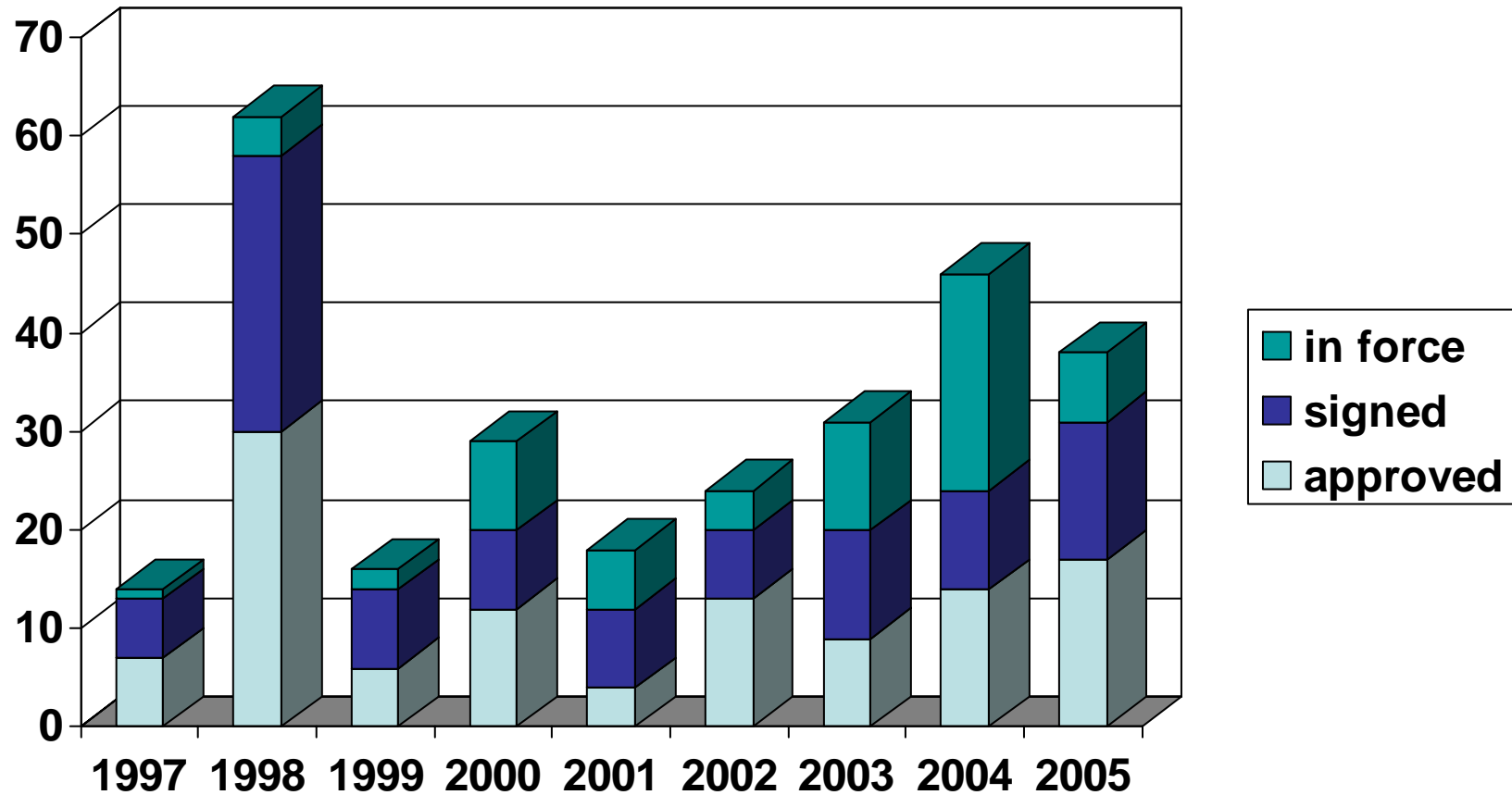
- Annex I – Provision of Information
 - LIST OF ACTIVITIES REFERRED TO IN ARTICLE 2.a.(iv) OF THE PROTOCOL
- The manufacture of :
 - *centrifuge rotor tubes or the assembly of gas centrifuges*
 - *diffusion barriers*
 - *or assembly of laser-based systems*
 - *or assembly of electromagnetic isotope separators*
 - *or assembly of columns or extraction equipment*
 - *aerodynamic separation nozzles or vortex tubes*
 - *or assembly of uranium plasma generation systems*
 - *zirconium tubes*
 - *or upgrading of heavy water or deuterium*
 - *nuclear grade graphite*
 - *flasks for irradiated fuel*
 - *reactor control rods*
 - *criticality safe tanks and vessels*
 - *irradiated fuel element chopping machines*
 - *construction of hot cells*

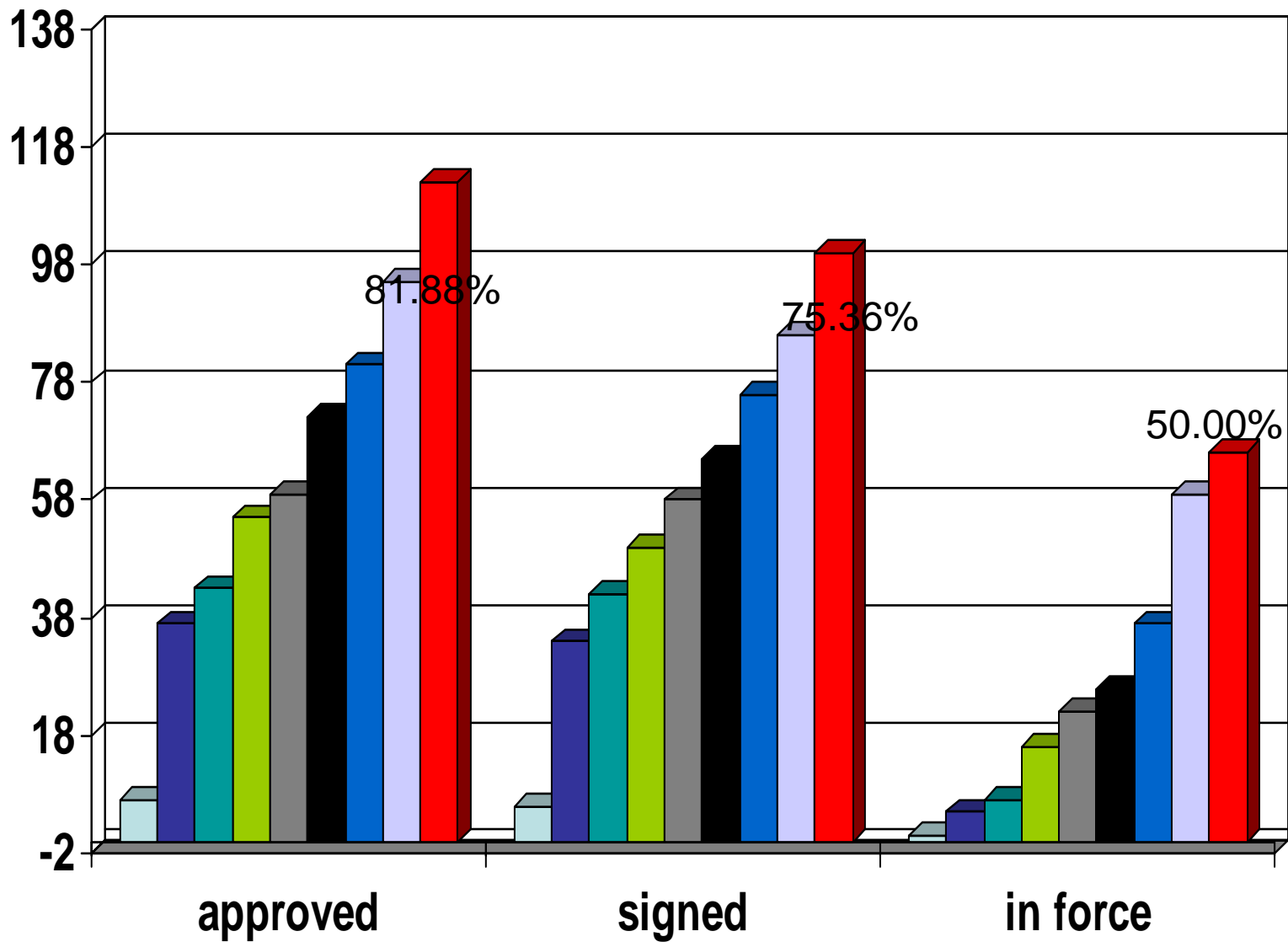
- **Annex II – Provision of Information**
 - **LIST OF SPECIFIED EQUIPMENT AND NON-NUCLEAR MATERIAL FOR THE REPORTING OF EXPORTS AND IMPORTS**
 - **Reactors and equipment therefor**
 - **Non-nuclear materials for reactors**
 - **Plants for the reprocessing of irradiated fuel elements, and equipment especially designed or prepared therefor**
 - **Plants for the fabrication of fuel elements**
 - **Plants for the separation of isotopes of uranium and equipment, other than analytical instruments, especially designed or prepared therefor**
 - **Plants for the production of heavy water, deuterium and deuterium compounds and equipment especially designed or prepared therefor**
 - **Plants for the conversion of uranium and equipment especially designed or prepared therefor**

3. Administrative Measures

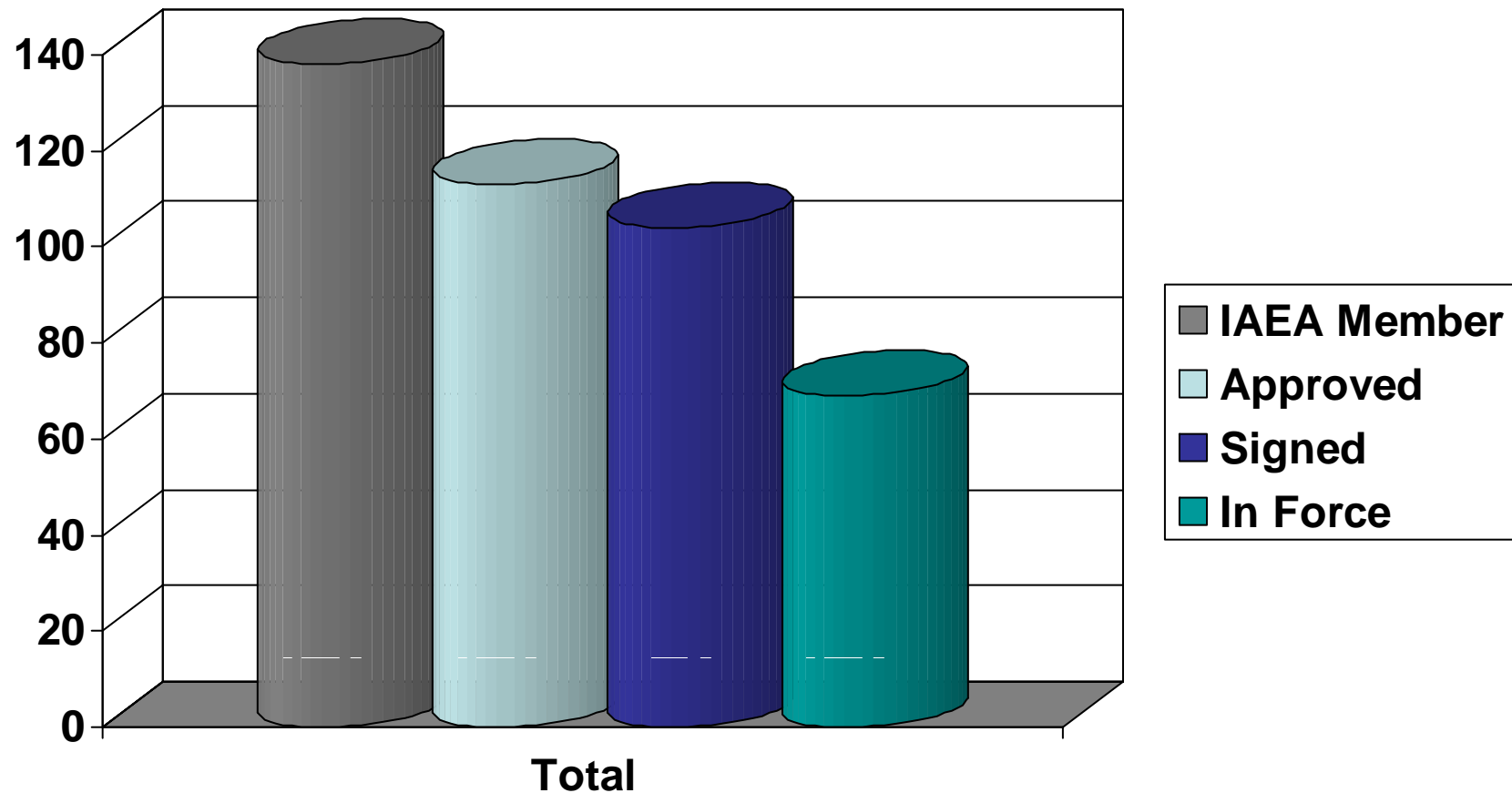
- No visas or multi-year multiple entry visas
- Modern communications capabilities
- New technical measures (e.g. environmental sampling)

Trend of Joining the AP





Overall Status of AP



Thank You.

Q&A



The Amount of plutonium in the Nagasaki Bomb

This glass ball, 3.2 inches across, is the size of the plutonium core in the bomb that exploded over Nagasaki with a force equivalent to 22,000 tons of TNT.

Kansas City, Missouri, September 22, 1983.

Return to Session 4