

*Safeguarding Nuclear Technology and Ensuring the Safety and Security of
Radioactive and Nuclear Material*

Export Control of the Nuclear Related Items

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Atomic Energy Licensing Board
Ministry of Science, Technology and Innovation (MOSTI)
MALAYSIA

Ensuring Safety, Security & Safeguarding Peaceful Nuclear Activities

Atomic Energy Licensing Board

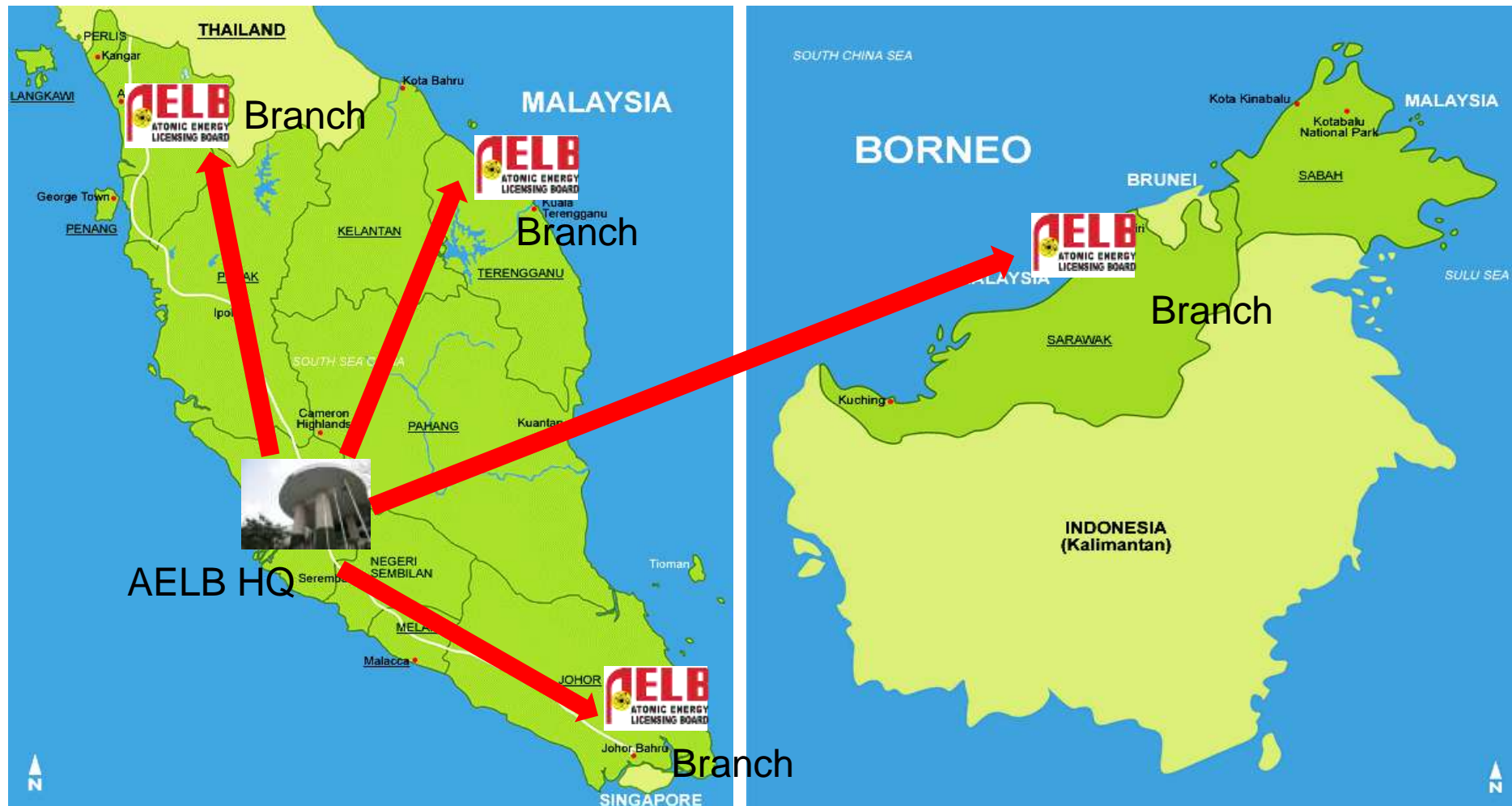


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<http://www.aelb.gov.my>

Atomic Energy Licensing Board (AELB)- A Regulatory Body for Nuclear and Radiation Activities in Malaysia under Act 304 and Relevant Authority under Act 708



AELB, Act 304 & ACT 708

Main Acts

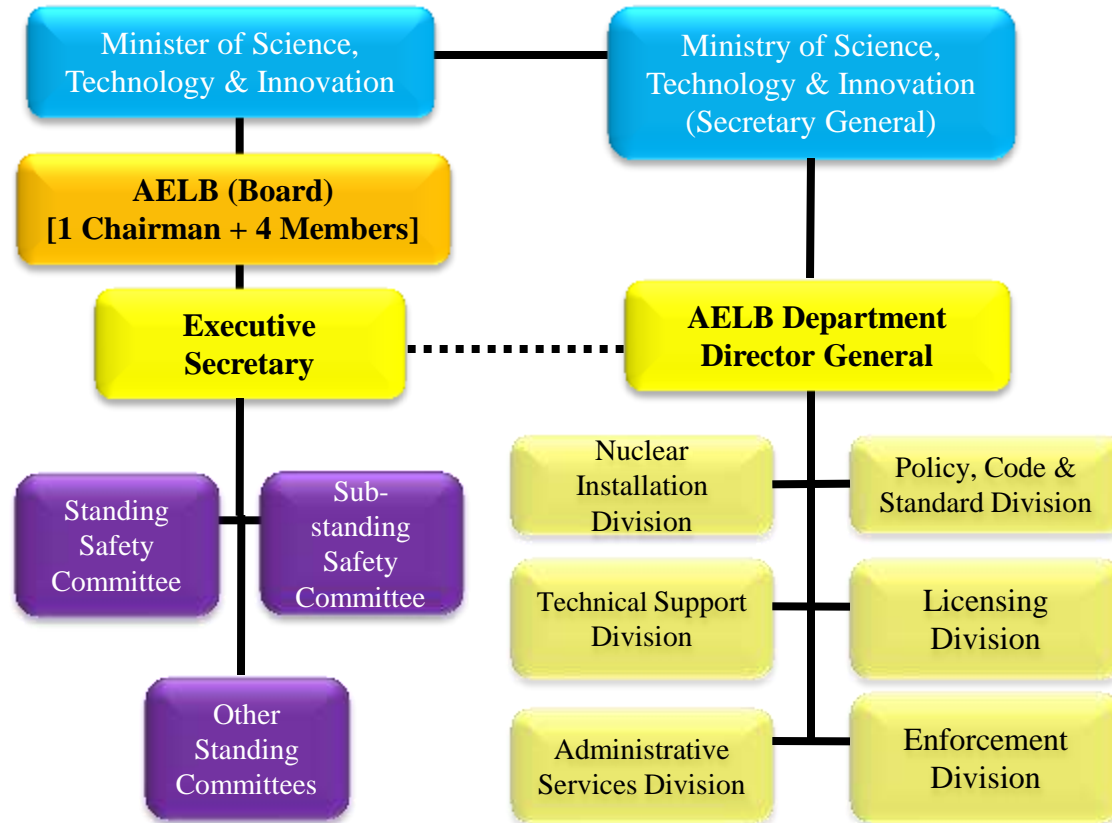
Atomic Energy
Licensing Act 1984
(Act 304)
&
Strategic Trade Act
2010
(Act 708)

- To provide for the regulation and control of atomic energy **technology & its trade**.
- For the establishment of standards on liability for nuclear damage.
- For matters connected therewith or related thereto.

Regulatory Body
& ST Relevant
Authority

- Atomic Energy Licensing Board (AELB) was established under Section 3 of the Act 304.
- Ensuring safety, security and safeguarding peaceful Nuclear Activities.

Atomic Energy Licensing Board



Why the need for Strategic Trade Act 2010

Malaysia Has It All

- **Currently the fastest/greatest economic growth in the world, particularly in the development of and trade in high-tech**
- **Has both key suppliers and transit / transshipment hubs**
- **Region also has terrorism, potential military conflict, proliferation and other security challenges**
- **Export control systems that have started developing almost as rapidly as the: Singapore, Korea and China**
(University of Georgia, USA)

Malaysia linked to Iran arms trade

JUSTIN BLUM IN WASHINGTON
September 15, 2009

IRAN increasingly is obtaining US military equipment and technology through shipments to Malaysian middlemen that illegally circumvent trade controls, US officials and analysts say.

Iran's Procurement of US Military aircraft Parts: Two case studies in illicit trade

The US has charged, in at least six cases involving shipments have included firms linked to Iran's nuclear program, US papers say.

21 May 2009 by David Albright, Paul Brannan and Andrea Scheel. ISIS Report

Iran illicitly targets U.S. military technology for procurement both because of its high quality and Iran's need for specialized replacement components for existing aircraft programs dating to the Shah's reign in the 1970s. Two recent cases of Iranian procurement of controlled U.S. military aircraft parts are detailed in this report.

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US slaps sanctions on Scomi's chief

KUALA LUMPUR, Jan 16 - The decision by the United States to slap sanctions on a Malaysian businessman with close ties to Prime Minister Abdullah Badawi's son is set to revive debate over the country's role in the clandestine nuclear-smuggling network headed by rogue Pakistani scientist Abdul Qadeer Khan.

Shah Hakim Shahzanim Zain, chief executive officer (CEO) and major shareholder of Malaysian engineering powerhouse Scomi Group, was designated by the US State Department together with 12 other individuals, including Dr Khan, for their alleged involvement in nuclear proliferation.

Also designated was Buhary Syed Tahir, a Sri Lankan businessman and a Malaysian permanent resident, who

<http://www.aelb.gov.my>

Why Malaysia?



- Strategic location along major trade routes
- Continuing growth of transshipment hubs ;13 of the world's largest transshipment hubs are in Asia
- Emerging global suppliers of sophisticated dual-use technologies
- Share of global high tech trade increasing and diversifying
- High level of cross-border transfers

(University of Georgia, USA)

Why the need for Controlling of Strategic Items

Iraq, until 1991, had been conducting a clandestine nuclear weapons programme. In 1990s, the IAEA identified inconsistencies between nuclear activities declared under the NPT safeguards agreement of the **Democratic People's Republic of Korea (DPRK)** and information available to the IAEA

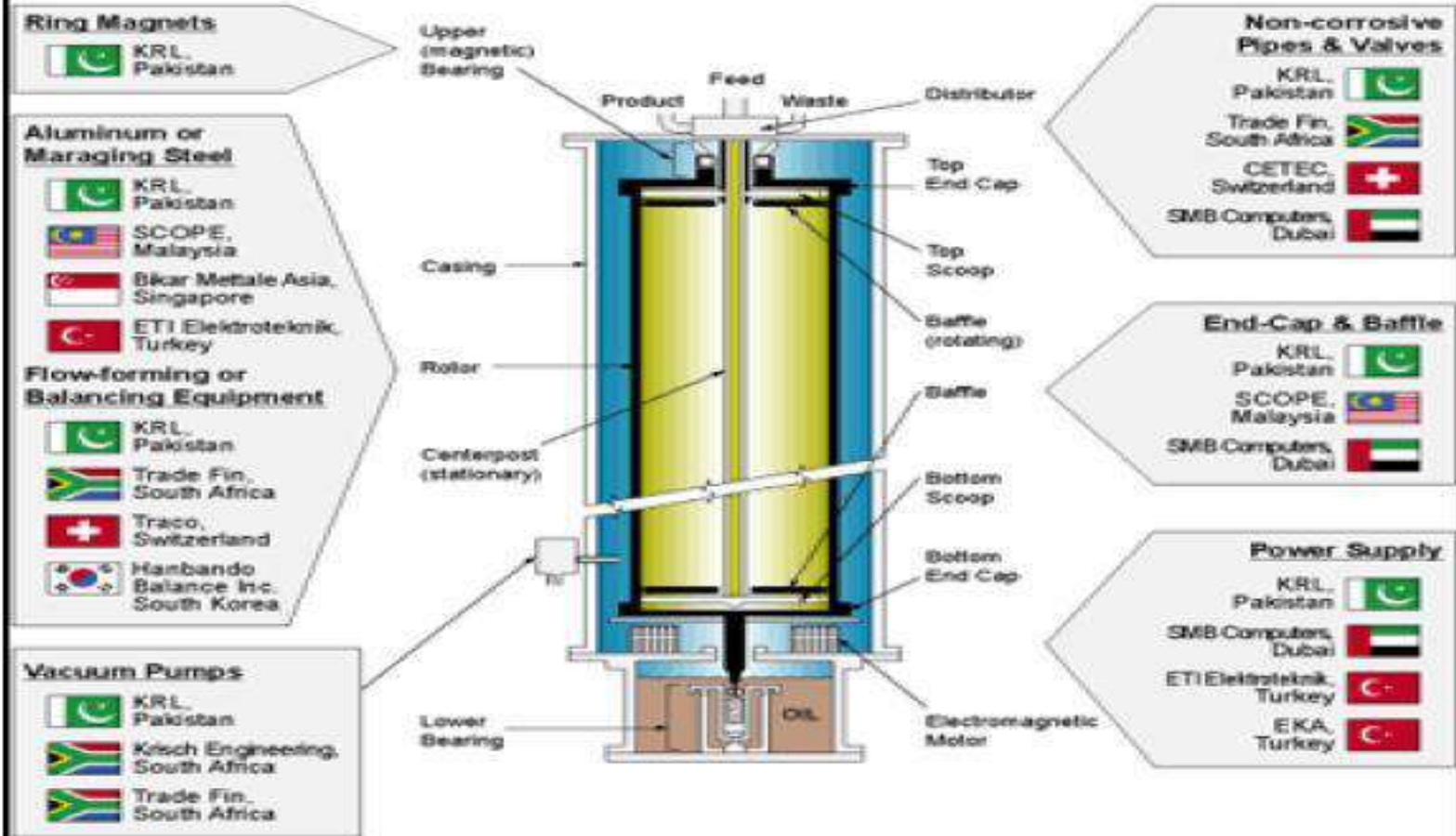
In 1991, **South Africa** acceded to the NPT, concluded a CSA and informed the IAEA that it had dismantled its nuclear devices prior to becoming party to the NPT.

The **Libyan Arab Jamahiriya (Libya)** the IAEA in 2003 that it had previously engaged in small scale nuclear weapons related research and purchased related technology through a covert supply network.

In 2003, information came to light regarding previously undeclared nuclear material and activities that the **Islamic Republic of Iran (Iran)** should have declared but had not declared to the IAEA.

Russia sold Myanmar research reactor in 2001 and intensified in 2007 with the resumption of a formal military relationship between North Korea and Burma, known officially as **Myanmar**

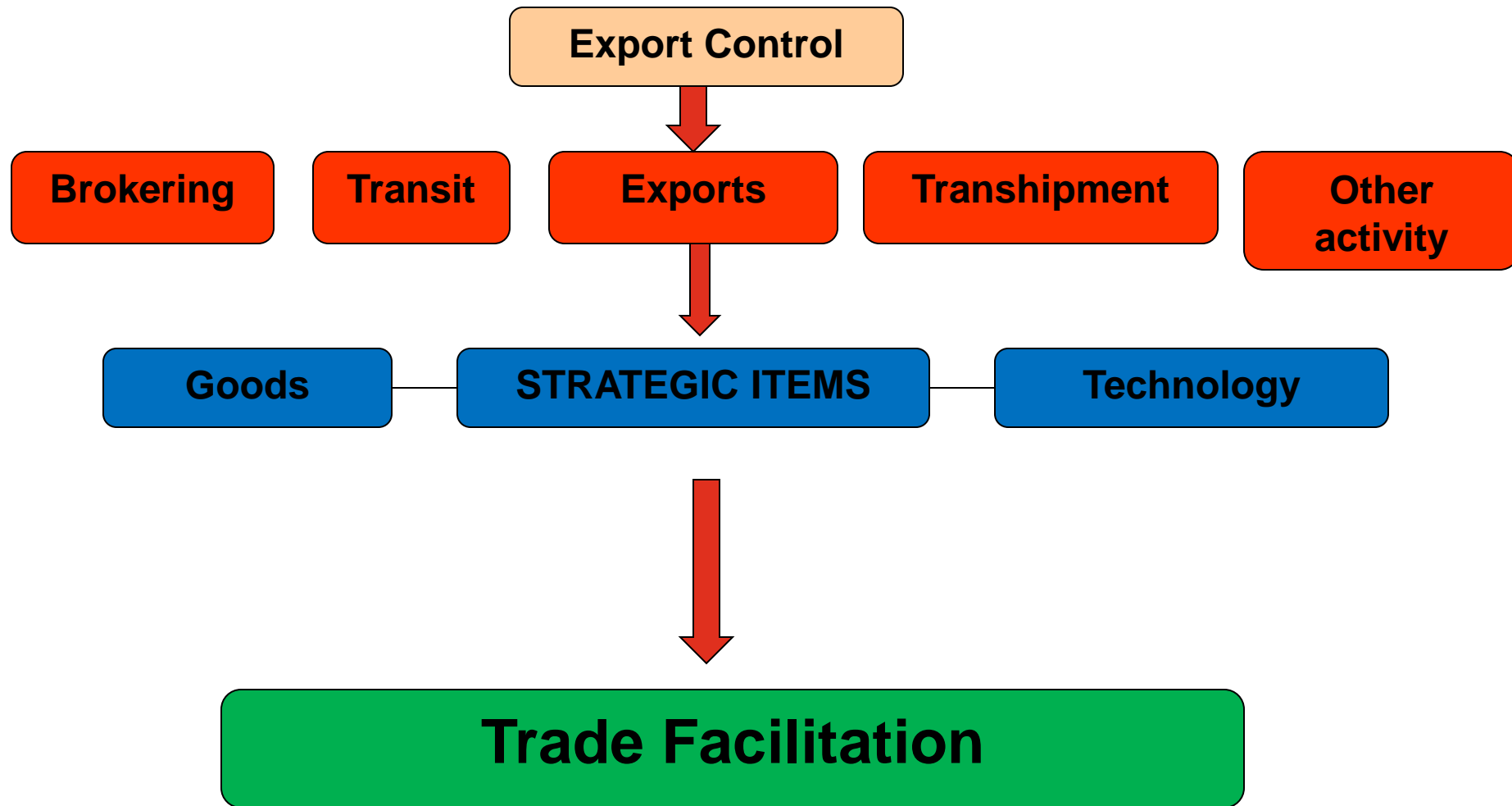
COMPANIES REPORTED TO HAVE SOLD OR ATTEMPTED TO SELL LIBYA GAS CENTRIFUGE COMPONENTS



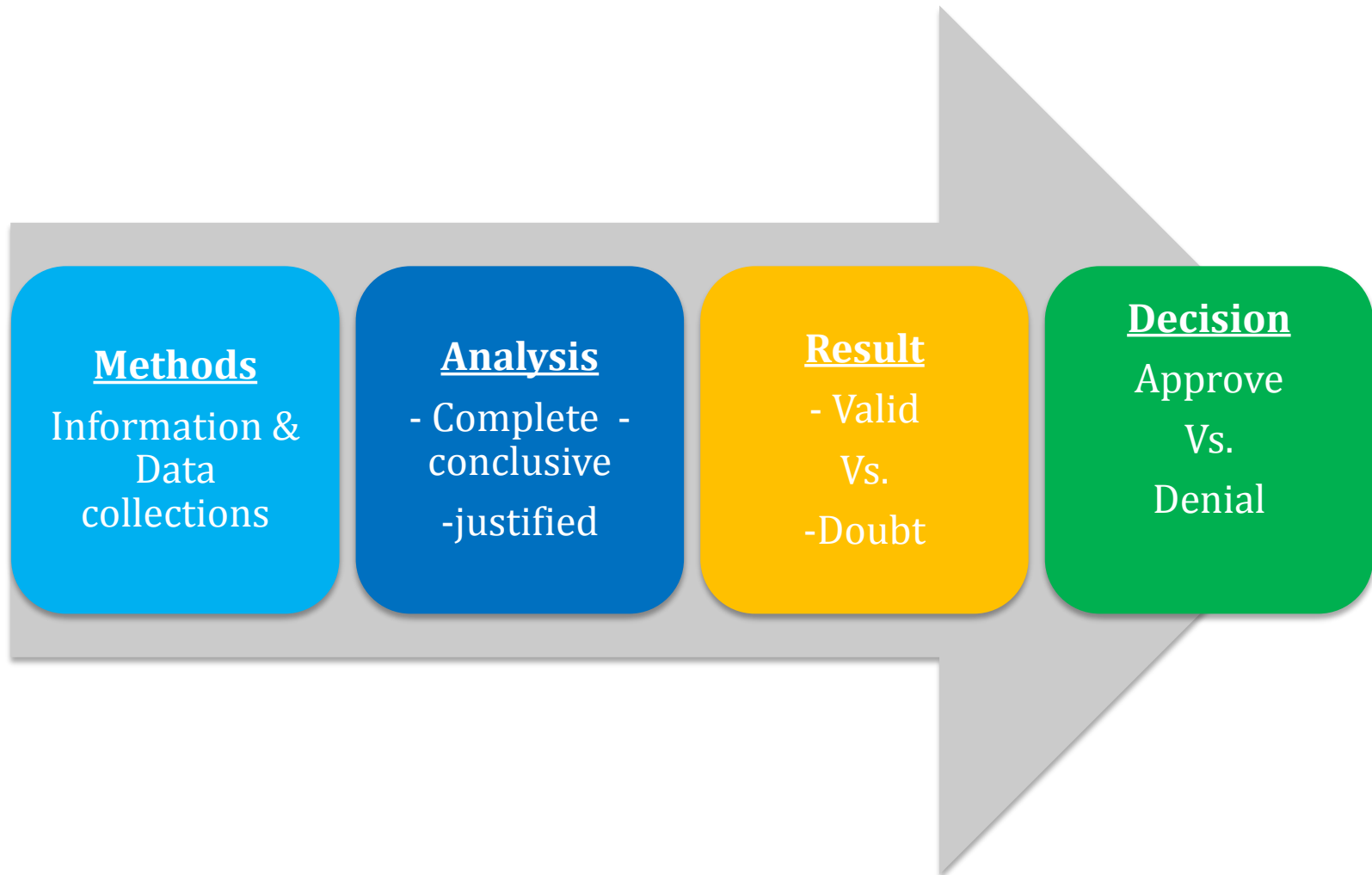
Source: Center for Nonproliferation Studies, January 2006

The Center for Nonproliferation Studies at the Monterey Institute of International Studies

Strategic Trade Act 2010 Objective



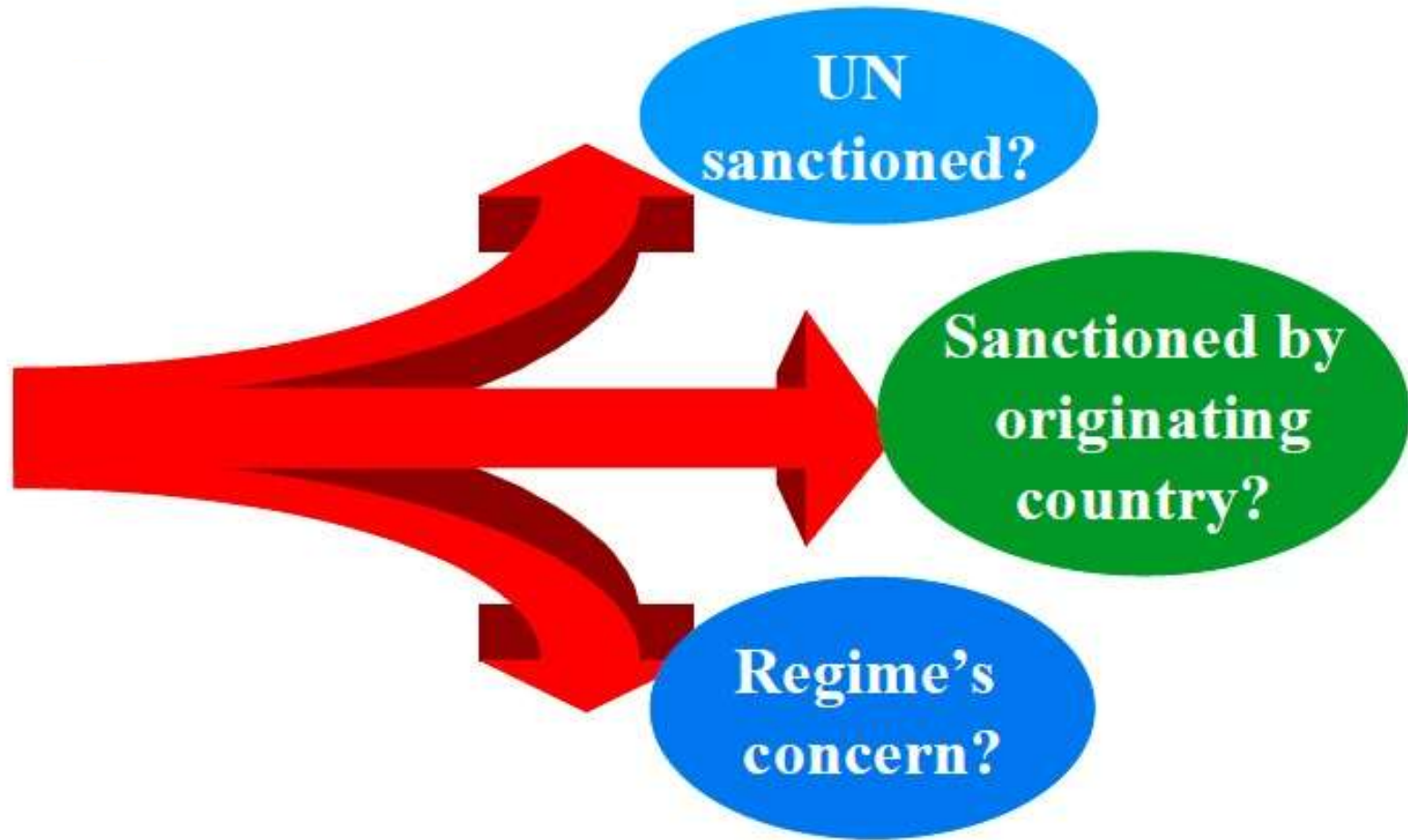
Permit Issuance Assessment



Risk Assessment Elements



End User/End Destination



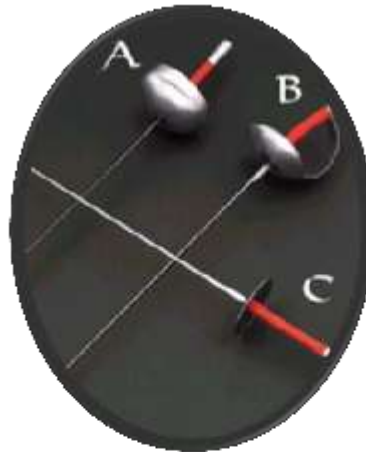
How is my product is related to Nuclear Technology and can be considered as Strategic Items



Dual-Use Reality



Maraging Steel



Nuclear Grade Graphite



How to identify my product in the Strategic Trade List

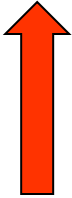
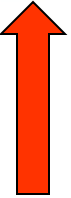
1. Search for product specification

7. Molecular "laser" isotope separation (MLIS) plant;	8401.20 000		Department of Atomic Energy Licensing Board (AELB), MOSTI
8. Plasma separation plant;	8401.20 000		Department of Atomic Energy Licensing Board (AELB), MOSTI
9. Electro magnetic separation plant;	8401.20 000		Department of Atomic Energy Licensing Board (AELB), MOSTI
b. Gas centrifuges and assemblies and components, specially designed or prepared for gas centrifuge separation process, as follows:		3. In 0B001.b. 'high strength-to-density ratio material' means any of the following: <ul style="list-style-type: none"> a. Maraging steel capable of an ultimate tensile strength of 2 050 MPa or more; b. Aluminium alloys capable of an ultimate tensile strength of 460 MPa or more; or c. "Fibrous or filamentary materials" with a "specific modulus" 	Department of Atomic Energy Licensing Board (AELB), MOSTI
1. Gas centrifuges;	840120000		Department of Atomic Energy

http://www.aelb.gov.my/aelb/malay/dokumen/panduan/LEMTEK59-GUIDELINE_FOR_HS_CODE_FOR_STRATEGIC_ITEMS_UNDER_THE_STA_2010.pdf

2. Search for Category Code

3. Search for HS Code

 <p>2B230</p> <p>2</p>	<p>"Pressure transducers" capable of measuring absolute pressures at any point in the range 0 to 13 kPa and having both of the following characteristics:</p> <p>a. Pressure sensing elements made of or protected by aluminium, aluminium alloy, nickel or nickel alloy with more than 60 % nickel by weight; <u>and</u></p> <p>b. Having either of the following characteristics:</p> <ol style="list-style-type: none"> 1. A full scale of less than 13 kPa and an 'accuracy' of better than $\pm 1\%$ of full-scale; <u>or</u> 2. A full scale of 13 kPa or greater and an 'accuracy' of better than ± 130 Pa. 	<p>9026.20 000</p>  <p>3</p>	<p><u>Technical Note:</u></p> <p><i>For the purposes of 2B230, 'accuracy' includes non-linearity, hysteresis and repeatability at ambient temperature.</i></p>	<p>Department of Atomic Energy Licensing Board (AELB), MOSTI</p>
<p>2B231</p>	<p>Vacuum pumps having all of the following characteristics:</p> <p>a. Input throat size equal to or greater than 380 mm;</p> <p>b. Pumping speed equal to or greater than 15 m³/s; and</p> <p>c. Capable of producing an ultimate vacuum better than 13 mPa.</p>	<p>8414.10 000</p>	<p><u>Technical Note:</u></p> <p><i>The pumping speed is determined at the measurement point with nitrogen gas or air.</i></p> <p><i>The ultimate vacuum is determined at the input of the pump with the input of the pump blocked off.</i></p>	<p>Department of Atomic Energy Licensing Board (AELB), MOSTI</p>
<p>2B232</p>	<p>Multistage light gas guns or other high-velocity gun systems (coil, electromagnetic, and electro thermal types, and other advanced systems) capable of accelerating projectiles to 2 km/s or greater.</p>	<p>9304.00 000</p>		<p>Department of Atomic Energy Licensing Board (AELB), MOSTI</p>
<p>2B350</p>	<p>Chemical manufacturing facilities, equipment and components, as follows:</p>		<p><u>Technical Note:</u></p> <p><i>'Carbon graphite' is a composition of amorphous carbon and graphite, in which the graphite content is 8 % or more by weight.</i></p>	

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Thank you