

# Importance of Export Control for Companies

Security Export Control Policy  
Division, Trade and Economic  
Cooperation Bureau, Ministry of  
Economy, Trade and Industry  
(METI)

---

Importance of Export Control for Companies/ Industry Outreach Seminar in Thailand, *March 8, 2011*

## Contents

**1 . Importance of Export Control**

**2 . International export control  
Regime and regulated items**

---

Importance of Export Control for Companies/ Industry Outreach Seminar in Thailand, *March 8, 2011*

2

# 1. Importance of Export Control

**Terrorist attacks/  
Military activities  
in countries of  
concern**

**Threat to the well-being of citizens**

**Stagnation of investment**

**Bad influence on economic activities**

## 1) Growing terrorism and WMD-related activity

There have been many incidents of terrorism and WMD-related activity around the world.

### Terrorist attacks

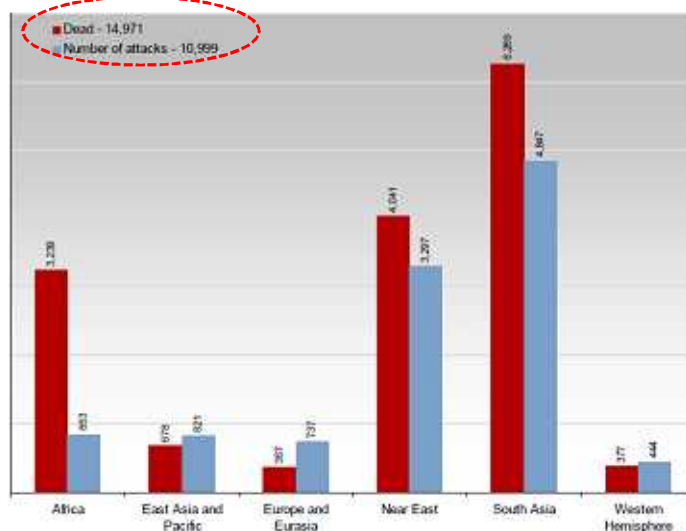
1. 9/11 attacks (September 2001)
2. Bali bombings (October 2002, October 2005)
3. Madrid train bombings (March 2004)
4. London bombings (July 2005)
5. Mumbai train bombings (July 2006)
6. Terrorist Attacks in Pakistan (January 2010)
7. Moscow subway bombings (February 2010)

### WMD-related activities

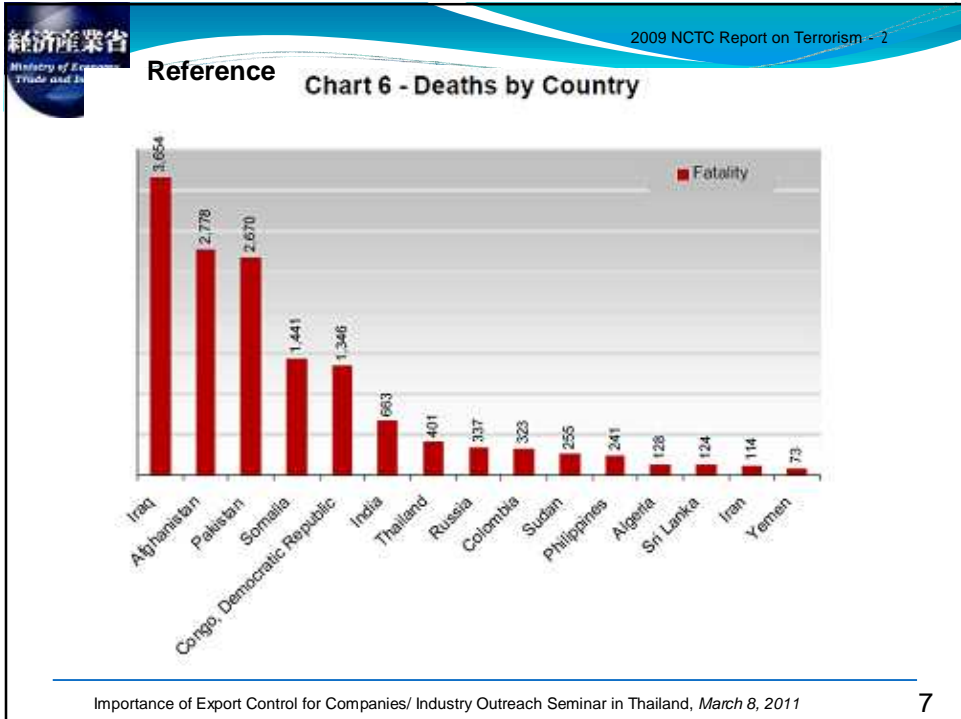
1. A.Q. Khan Network (2004)
2. North Korean missile tests (July 2006, April and July 2009)
3. North Korean announcement on nuclear tests (October 2006, May 2009)
4. Iranian enrichment-related activities (February 2010)

## Reference 2009 NCTC Report on Terrorism - 1

Chart 1 - Lethality - Comparison of Fatalities and Incidents by Region



NCTC : National Counterterrorism Center



2009 NCTC Report on Terrorism - 2

**( 2 ) Serious damage by terrorism**

Terrorism causes not only serious personal injury, but also damages the economy and industry in affected countries/regions.

Example: 2002 Bali bombings (October 2010)

- Tourist industry is 5% of GDP
- Right after the bombings, hotel occupancy rates decreased from 70% to single digits
- The number of tourists declined by 0.8 million, to 4.3 million

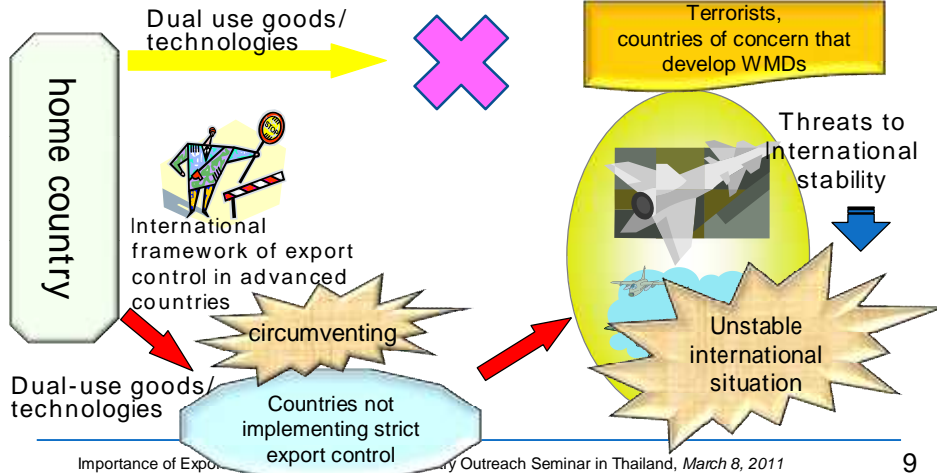
In industrial countries, investment decreases

Importance of Export Control for Companies/ Industry Outreach Seminar in Thailand, March 8, 2011

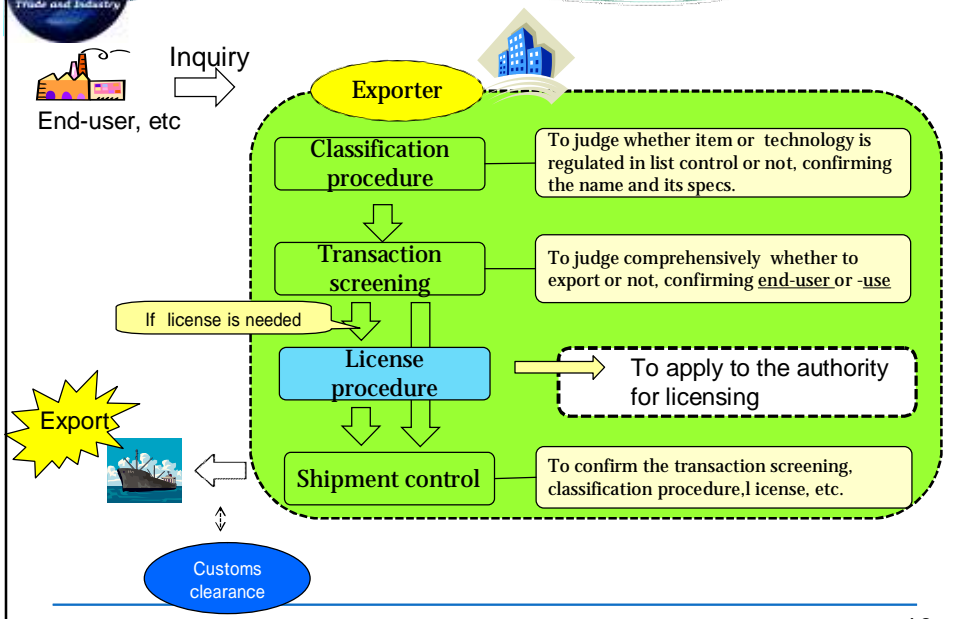
8

### (3) What is export control?

Terrorists or countries of concern can procure items exported from a country that has introduced export control through a third country



### (4) The procedure of export control



## (5) What is export control?

- Purpose: maintenance of international peace and security
  - Prevention of proliferation of WMDs and diversion to military use
- Control subjects: exporters (regulatory authority: relevant ministry or agency)
- Control subjects: export goods and technologies
- Control point
  - end-use
  - end-user
  - delivery route (stopover)

### Ref.1: The criteria for licensing examination in Japan

The criteria for export licensing examination  
(Extract from notification for operation)

- Will items actually reach the stated end-user?
- Will the stated end-user really use the item?
- Will the *actual use* exactly match the *stated end-use*?
- Will the stated end-user apply strict control to the item?

## (6) Penalties for Violations

Exporters who export regulated goods or technologies without licenses are subject to penalties based on the law

### Criminal Penalties

Imprisonment of up to ten years  
Fine of up to US\$115,000 (¥10 million)  
(Fine is up to 5 times the value of goods or technologies.)

### Administrative Penalty

Prohibition on exporting goods and technologies for up to three years

Admonition to violators by METI

Publication

- serious damage to corporate image
- social sanction
- shareholder lawsuit etc.



## (7) Japanese Activities(International cooperation)

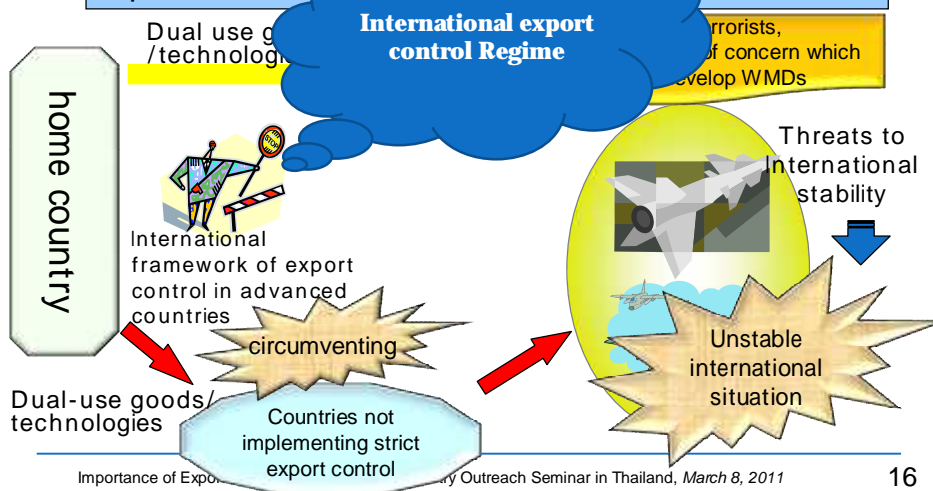
### Joint Industry Outreach Seminar



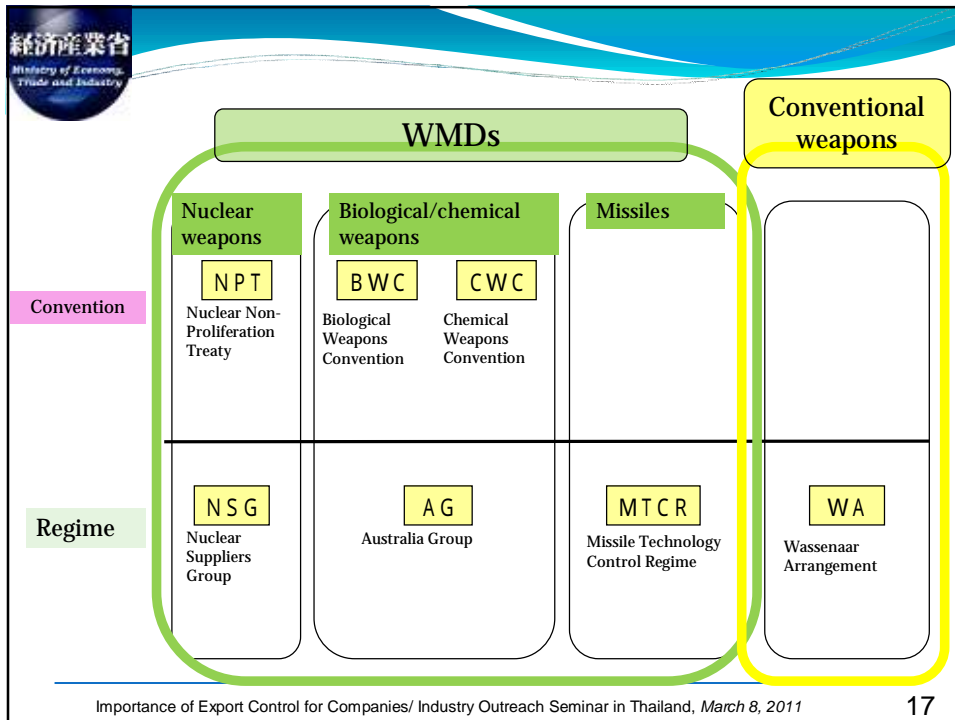
## 2. International export control Regime and regulated items

### (1) What is the Regime?

Terrorists or countries of concern can procure items exported from a country introduced export control the







- 
- ## Outline of Export Control in Regime
- Control Lists of the Regimes
1. *Nuclear Suppliers Group*
    - Trigger List (Part 1)
    - Dual-Use List (Part 2)
  2. *Australia Group*
    - Chemical Weapons Precursors
    - Biological Agents
    - Plant /Animal Pathogens
    - Dual-Use Chemical/Biological Facilities and Equipment
  3. *Missile Technology Control Regime*
    - Category I
    - Category II
  4. *Wassenaar Arrangement*
    - Munitions List
    - Dual-Use List (BL, SL, VSL)
- Importance of Export Control for Companies/ Industry Outreach Seminar in Thailand, March 8, 2011 18

Ref. Website(NSG)

• NSG: <http://www.nuclearsuppliersgroup.org/Leng/default.htm>

This web site is for information purposes only and does not guarantee the correctness of the provided text. The authentic wording shall be taken from the official publications and announcements.

Ref. Website(AG)

• AG: <http://www.australiagroup.net/en/index.html>

Ref. Website(MTCR)

**MTCR** Missile Technology Control Regime

**The Missile Technology Control Regime**

The Missile Technology Control Regime is an informal and voluntary association of countries which share the goals of non-proliferation of unmanned delivery systems capable of delivering weapons of mass destruction, and which seek to coordinate national export licensing efforts aimed at preventing their proliferation. The MTCR was originally established in 1987 by Canada, France, Germany, Italy, Japan, the United Kingdom and the United States. Since that time, the number of MTCR partners has increased to a total of thirty-four countries, all of which have equal standing within the Regime.

The MTCR was initiated partly in response to the increasing proliferation of weapons of mass destruction (WMD), i.e., nuclear, chemical and biological weapons. The risk of proliferation of WMD is well recognized as a threat to international peace and security, including by the UN Security Council in its Summit Meeting Declaration of January 31, 1992. While concern has traditionally focussed on state proliferators, after the tragic events of 11 September 2001, it became evident that more also has to be done to decrease the risk of WMD delivery systems falling into the hands of terrorist groups and individuals. One way to counter this threat is to maintain vigilance over the transfer of missile equipment, material, and related technologies usable for systems capable of delivering WMD.

The MTCR rests on adherence to common export policy guidelines (the MTCR Guidelines) applied to an integral common list of controlled items (the MTCR Equipment, Software and Technology Annex). All MTCR decisions are taken by consensus, and MTCR partners regularly exchange information about relevant national export licensing issues.

National export licensing measures on these technologies make the task of countries seeking to achieve capability to acquire and produce unmanned means of WMD delivery much more difficult. As a result, many countries, including all MTCR partners, have chosen voluntarily to introduce export licensing measures on rocket and other unmanned air vehicle delivery systems or related equipment, material and technology.

The current Chairman of the Regime is Mr John Quinn of the Australian Department of Foreign Affairs and Trade.

- MTCR: <http://www.mtcr.info/english/index.html>

Importance of Export Control for Companies/ Industry Outreach Seminar in Thailand, March 8, 2011

Ref. Website(WA)

**Wassenaar Arrangement**

an Export Control for Conventional Arms and Dual-Use Goods and Technologies

Home | Sitemap | Contact Us | Search

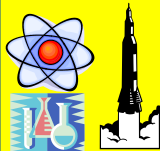
**Latest Additions**

- Public Statement - February/December 2008
- Control Lists
- Summary of Changes to Control Lists
- Basic Documents - January 2008

- WA: <http://www.wassenaar.org/>

Importance of Export Control for Companies/ Industry Outreach Seminar in Thailand, March 8, 2011

(3) Relationship between regulated items in Japan and the regime list

Item	Regime	Listed items in Regime list		
1 Weapons	WA (Wassenaar Arrangement)			
2 Dual-use items	WMDs 	NSG(Nuclear Suppliers Group) NSG part 1 NSG part 2 Items especially designed for nuclear use dual-use items and technologies		
3	AG (Australia Group)	Chemicals and manufacturing equipment for Chemical weapons		
3-2		Biological Agents and equipment for Biological weapons		
4	MTCR (Missile Technology Control Regime)	Missile, rockets and manufacturing equipment		
5	Conventional weapons	WA(Wassenaar Arrangement)	Category 1	Special Materials and Related Equipment
6			Category 2	Materials Processing
7			Category 3	Electronics
8			Category 4	Computers
9			Category 5	Telecommunications
10			Category 6	Sensors and "Lasers"
11			Category 7	Navigation and Avionics
12			Category 8	Marine
13			Category 9	Aerospace and Propulsion
14 others				Munitions List (Except for the items in Item )
15 Dual-use items		Sensitive List		
16	WMDs	Military End-use control WMDs Catch-all control		

Importance of Export Control for Companies/ Industry Outreach Seminar in Thailand, March 8, 2011

Reference Control List No.1 See web-site for details

品目	項番	品目	項番	品目	項番	品目	項番
1 武器	(1) 銃砲・銃砲弾等	(11) しごきスピニング加工機等	(41) 核兵器起爆・試験用貨物	(13) アイソトピック	(13) アイソトピック	(13) アイソトピック	(13) アイソトピック
(2) 爆発物・発射装置等	(12) 数値制御工作機械等	(12) 数値制御工作機械等	(42) 光電子増倍管	(14) 複合材用の炉等	(14) 複合材用の炉等	(14) 複合材用の炉等	(14) 複合材用の炉等
(3) 火薬類・軍用燃料	(13) 誘導炉・アーク炉・溶解炉等	(13) 誘導炉・アーク炉・溶解炉等	(43) 中性子発生装置	(15) ロケット用構造材料	(15) ロケット用構造材料	(15) ロケット用構造材料	(15) ロケット用構造材料
(4) 火薬・爆薬の安定剤	(14) アイソトピック	(14) アイソトピック	(44) 遠隔操作のマイクロター	(16) ロケット用加速度計・ジャイロ等	(16) ロケット用加速度計・ジャイロ等	(16) ロケット用加速度計・ジャイロ等	(16) ロケット用加速度計・ジャイロ等
(5) 指向性ミサイル・兵器等	(15) ロボット等	(15) ロボット等	(45) 放射線遮蔽窓・窓枠	(17) ロケット用飛行・姿勢制御装置等	(17) ロケット用飛行・姿勢制御装置等	(17) ロケット用飛行・姿勢制御装置等	(17) ロケット用飛行・姿勢制御装置等
(6) 運動ミサイル・兵器等	(16) 振動試験装置等	(16) 振動試験装置等	(46) 耐放射線電子ビーム管	(18) アルミニウム	(18) アルミニウム	(18) アルミニウム	(18) アルミニウム
(7) 軍用車両・軍用仮設機等	(17) ガス遠心分離機ロケット用構造材料	(17) ガス遠心分離機ロケット用構造材料	(47) トリチウム等	(19) ロケット用熱電池	(19) ロケット用熱電池	(19) ロケット用熱電池	(19) ロケット用熱電池
(8) 軍用船舶等	(18) ヘリウム	(18) ヘリウム	(48) トリチウム製造・回収・貯蔵装置	(20) 航空機・船舶用重力計・重力勾配計	(20) 航空機・船舶用重力計・重力勾配計	(20) 航空機・船舶用重力計・重力勾配計	(20) 航空機・船舶用重力計・重力勾配計
(9) 軍用航空機等	(19) 核兵器起爆用アルファ線源用物質等	(19) 核兵器起爆用アルファ線源用物質等	(49) 白金触媒	(21) ロケット発射台・地上支援装置	(21) ロケット発射台・地上支援装置	(21) ロケット発射台・地上支援装置	(21) ロケット発射台・地上支援装置
(10) 防潜網及び魚雷防御網等	(20) ほう素10	(20) ほう素10	(50) ヘリウム	(22) ロケット用無線遠隔測定・制御装置	(22) ロケット用無線遠隔測定・制御装置	(22) ロケット用無線遠隔測定・制御装置	(22) ロケット用無線遠隔測定・制御装置
(11) 装甲板・軍用ヘルメット・防弾衣等	(21) 核燃料物質製造用還元剤・酸化剤	(21) 核燃料物質製造用還元剤・酸化剤	3 化学兵器	(23) ロケット搭載用電子計算機	(23) ロケット搭載用電子計算機	(23) ロケット搭載用電子計算機	(23) ロケット搭載用電子計算機
(12) 軍用探照灯・制御装置	(22) アクリル耐食性のるつぼ	(22) アクリル耐食性のるつぼ	(1) 軍用化学製剤の原料・軍用化学製剤と同等の毒性の物質・その原料	(24) ロケット用デジタル変換器	(24) ロケット用デジタル変換器	(24) ロケット用デジタル変換器	(24) ロケット用デジタル変換器
(13) 軍用細菌製剤・化学製剤等	(23) アルミニウム等	(23) アルミニウム等	(2) 軍用化学製剤製造用装置等	(25) 振動試験装置等	(25) 振動試験装置等	(25) 振動試験装置等	(25) 振動試験装置等
(14) 軍用細菌製剤等浄化化学物質	(24) リチウム等	(24) リチウム等	3の2 生物兵器	(26) ロケット設計用電子計算機	(26) ロケット設計用電子計算機	(26) ロケット設計用電子計算機	(26) ロケット設計用電子計算機
(15) 軍用化学製剤用細菌株等	(25) タングステン	(25) タングステン	(1) 軍用細菌製剤の原料	(27) 音波・電波等減少材等	(27) 音波・電波等減少材等	(27) 音波・電波等減少材等	(27) 音波・電波等減少材等
(16) 軍用火薬類の製造・試験装置等	(26) ジルコニウム等	(26) ジルコニウム等	(2) 軍用細菌製剤開発・製造用装置等	(28) ロケット用C-探知装置等	(28) ロケット用C-探知装置等	(28) ロケット用C-探知装置等	(28) ロケット用C-探知装置等
(17) 兵器製造用・試験装置等	(27) フッ素製用電解槽	(27) フッ素製用電解槽	4 ミサイル				
2 原子力	(28) ガス遠心分離機ロケット製造装置等	(28) ガス遠心分離機ロケット製造装置等	(1) ロケット製造装置等				
(1) 核燃料物質・核原料物質	(29) 遠心力式約合試験機	(29) 遠心力式約合試験機	(100) 無人航空機				
(2) 原子炉・原子炉発電装置等	(30) フラッシュ真空炉装置等	(30) フラッシュ真空炉装置等	(2) ロケット誘導装置・試験装置等				
(3) 重水素・重水素化合物	(31) レーザ・発振器	(31) レーザ・発振器	(3) 推進装置等				
(4) 人造黒鉛	(32) 質量分析計・イオン源	(32) 質量分析計・イオン源	(4) しごきスピニング加工機等				
(5) 核燃料物質等分離・再生装置等	(33) 圧力計・ピストン弁	(33) 圧力計・ピストン弁	(5) サージ弁・推進薬制御装置用ポンプ等				
(6) リチウム同位元素分離用装置等	(34) リンバドコル形超電導磁石	(34) リンバドコル形超電導磁石	(6) 推進薬・原材料				
(7) リチウム同位元素分離用装置等	(35) 真空ポンプ	(35) 真空ポンプ	(7) 推進薬の製造・試験装置等				
(8) 周波数変換器等	(36) 真空ポンプ	(36) 真空ポンプ	(8) 粉砕体用混合機等				
(9) ニックル粉等	(37) 電子加速器・X線線装置	(37) 電子加速器・X線線装置	(9) ショット・粉末金属製造装置等				
(10) ニックル粉等	(38) 衝撃試験機	(38) 衝撃試験機	(10) 複合材料製造装置等				
(11) 重水素・重水素化合物の製造装置等	(39) スリコック・フルーミングカサ等	(39) スリコック・フルーミングカサ等	(11) ノズル				
(12) リチウム同位元素製造装置等	(40) 干渉計・圧力測定器・圧力変換器	(40) 干渉計・圧力測定器・圧力変換器	(12) ロケット推進装置のノズル・再突入機先端部製造装置等				

Importance of Export Control for Companies/ Industry Outreach Seminar in Thailand, March 8, 2011









Reference Control List No.2 See web-site for details

品目	品目	品目	品目
(15) ミニミックスの複合材料	(12) 信号発生器	(1) 水中探知装置等	(8) 浮力材
(16) 芳香族ポリイミド・ポリイミド等	(13) 周波数分析器	(2) 光検出器・冷却器等	(9) 閉鎖回路式自給式潜水用具
(17) ビニチンポリオールの共重合体等	(14) ネットワークアダプター	(3) センサー用の光ファイバー	13 推進装置
(18) 炭素繊維・プリプレグ・プリフォーム等	(15) 原子周波数標準器	(4) 高速度カメラ等	(1) カスタムエンジン等
(19) ほう素・炭化ほう素・硝酸ゲルマニウム等のゲルマニウム等	(1502) スプレー冷却方式の熱制御装置	(5) 反射鏡	(2) 宇宙開発用飛翔体等
6 材料加工	(16) 半導体等製造装置等	(6) 光学部品	(3) ロケット推進装置等
(1) 軸受等	(17) マスク・レチクル等	(7) 光学器械・光学部品の制御装置	(4) 無人航空機等
(2) 数値制御工作機械等	(18) 半導体基板	(702) 非球面光学素子	(1)-(4)・15(10)の試験・測定・検査・製造装置等
(3) 歯車製造用工作機械等	(19) レジスト	(8) レーザー発振器等	14 その他
(4) アイソトーププレス等	(20) Al・Ga・Inの有機金属化合物等	(9) 磁力計・磁場勾配計・校正装置	(1) 粉末状の金属燃料
(5) コーティング装置等	(21) P・As等の水素化合物	(10) 重力計・重力勾配計	(2) 火薬・爆発成分・添加剤・前駆物質
(6) 測定装置等	(22) 炭化けい素・窒化けい素等の基盤等	(11) レーザー等	(3) デイモンエンジン等
(7) ロボット等	8 コンピュータ	(12) 光反射率測定装置等	(4) 削除
(8) フォトリソグラフィ装置等	9 電子計算機	(13) 重力計製造装置等	(5) 自給式潜水用具等
(9) 絞リスピニング加工機・しごきスピニング加工機	通信関連	(14) 光検出器の材料物質等	(6) 航空機輸送土木機械等
7 エレクトロニクス	(1) 伝送通信装置等	11 航法関連	(7) ロケット・ロケット制御装置等
(1) 集積回路	(2) 電子式交換装置	(1) 加速度計等	(8) 電気制御リフター
(2) マイクロ波用機器・ミリ波用機器部分品等	(3) 光ファイバー通信ケーブル等	(2) ジャイロスコープ等	(9) 衝撃剤等・これらの散布・防護装置等
(3) 信号処理装置等	(4) 削除	(3) 慣性航法装置等	(10) 簡易爆発装置除去処理装置等
(4) 超電導材料を用いた装置	(502) フェーデッドアンテナ	(4) ジャイロ天測航法装置等	15 機微品目
(5) 超電導磁石	(503) 監視用方向探知機等	(402) 水中リナ-航法装置等	(1) 無機繊維等
(6) 一次電池・二次電池・太陽電池	(504) 通信妨害装置等	(5) (1)-(4)の2の試験・製造装置等	(2) 電波吸収材・導電性高分子
(7) 高電圧用コンデンサ	(504) 電波等探知機	海洋関連	(3) 核熱源物質
(8) エンコーダ	(1) (1)-(3)・(5)-(504)の設計・製造装置等	(1) 潜水艇・水中翼船等	(4) デジタル制御方式伝送通信装置等
(802) サイスタ-バルブ等	(2) 暗号装置等	(2) 船舶の部分品・附属装置	(5) 音波水中探知装置等
(9) デジタルビデオ磁気テープ記録装置等	(3) 情報伝達信号漏洩防止装置等	(3) 水中回収装置	(6) 宇宙用光検出器
(10) 液形記憶装置	(4) 削除	(4) 水中カメラ等	(7) 目標自動識別レーダー等
(1002) 計測用記録装置	(10) 盗聴検知機能通信ケーブルシステム等	(5) 水中ロボット	(8) 単独航行潜水艇
(11) 画像検出カメラを用いた装置の部分品	(11) (7)-(10)の設計・製造装置等	(6) 密閉用動力装置	(9) 船舶用防音装置
	10 センサー・レーザー	(7) 同海水機	(10) カスタムエンジン・カスタムジェットエンジン等

Importance of Export Control for Companies/ Industry Outreach Seminar in Thailand, March 8, 2011 25

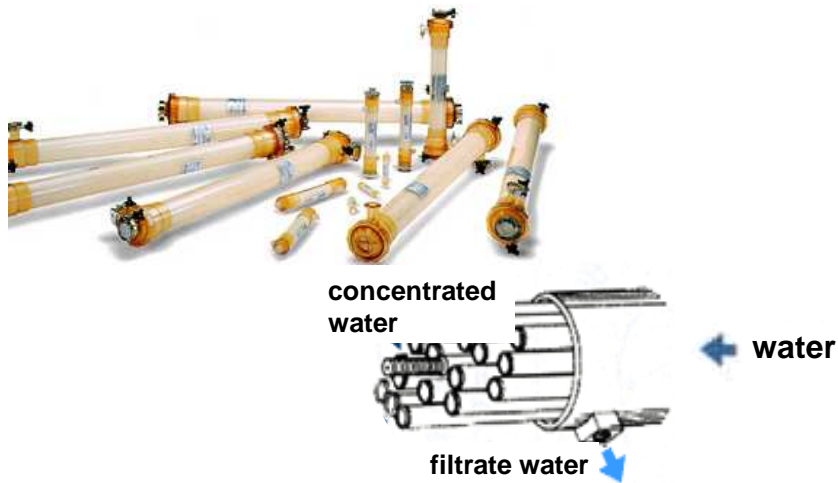
(4) Examples of dual-use goods

Some exports can be used for military purposes and are called "dual-use" items.

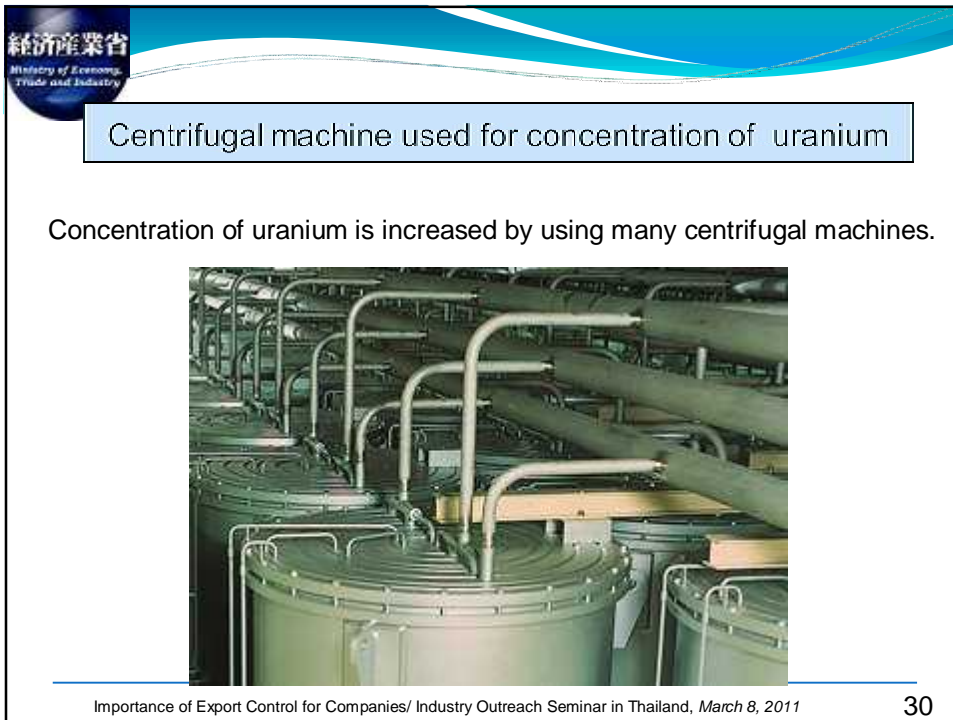
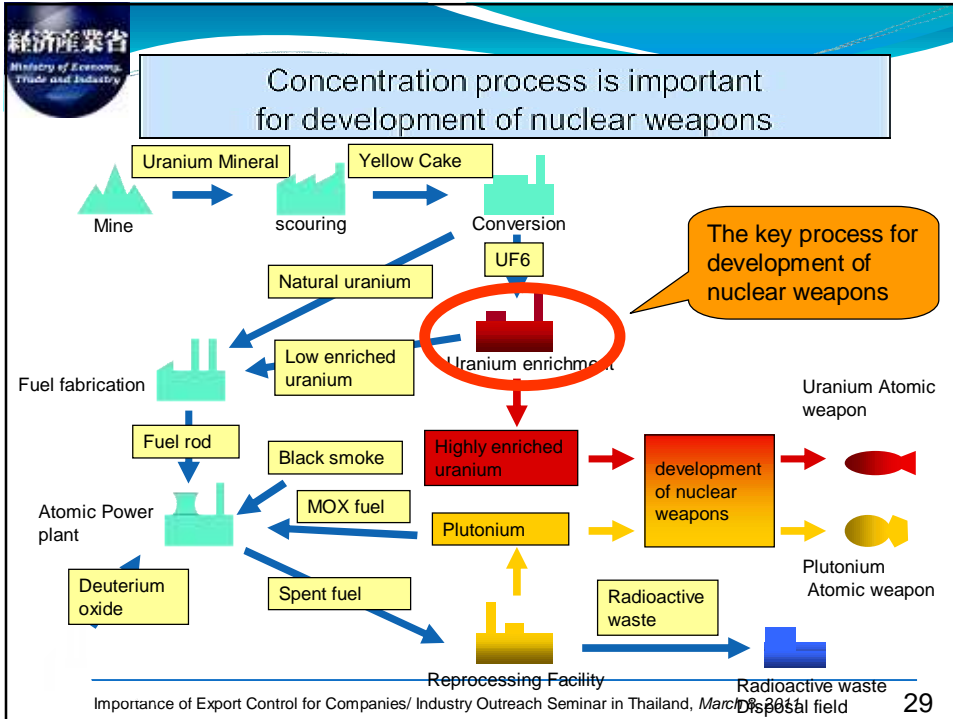
	Military Use	Civilian Use
Machine tool	Manufacturing centrifugal machine for concentration of uranium 	Processing automobile parts 
Potassium cyanide	Materials for chemical weapons 	Additive for metal-plating 
Cross-flow filtration	Extraction of bacteria for biological weapons 	Equipment for water purification (bacterial elimination) 
Carbon fibers	Missile components 	Airplane parts 

26 Importance of Export Control for Companies/ Industry Outreach Seminar in Thailand, March 8, 2011 26

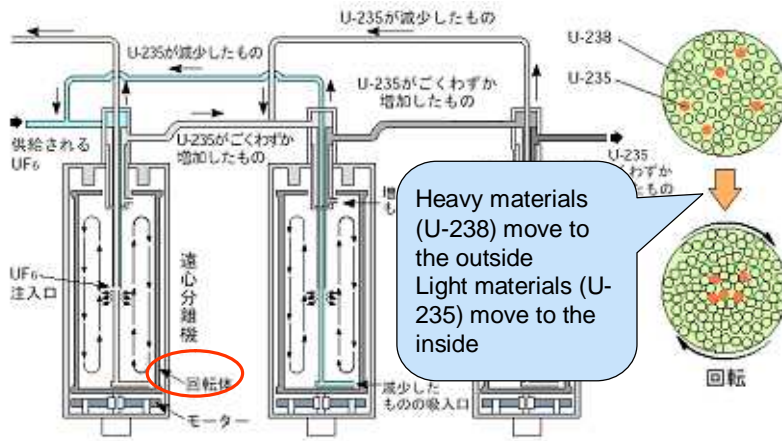
### (Ref.) Cross-flow filtration (UF module)



## (5) Examples of control items related to Nuclear Weapons



Uranium concentrated by centrifugal force



Machine tool

This machine tool is a machine that produce machine parts to remove metal. Computer Numerical Control (CNC) controls the movement and speed of the cutting tool with a computer and it can process complex shapes with a high degree of accuracy. Therefore, it is a necessary tool for fabricating metal components for military and civilian uses.



Civilian use

Used for processing automobile parts and general machine parts, which must be highly controlled

Use of concern

Uses related to nuclear weapons:  
Parts of explosion device for nuclear weapons, construction material for rotors of centrifugal machines

It is controlled in NSG and WA.



## Machine tools

1.B.2. Machine tools, as follows, and any combination thereof, for removing or cutting metals, ceramics, or composites, which, according to the manufacturer's technical specifications, can be equipped with electronic devices for simultaneous "contouring control" in two or more axes:

...

a. Machine tools for turning, that have "positioning accuracies" with all compensations available better (less) than 6  $\mu$  m according to ISO 230/2 (1988) along any linear axis (overall positioning) for machines capable of machining diameters greater than 35 mm;

...

b. Machine tools for milling, having any of the following characteristics:

1. "Positioning accuracies" with all compensations available better (less) than 6  $\mu$  m according to ISO 230/2 (1988) along any linear axis (overall positioning);
2. Two or more contouring rotary axes; or
3. Five or more axes, which can be coordinated simultaneously for "contouring control"

...

*Extraction from NSG guideline (part2)*

<http://www.nuclearsuppliersgroup.org/Leng/PDF/infirc254r7p2-060320.pdf>

## Aluminum alloy

The characteristics of aluminum alloy are:

it is light, easily processed and has corrosion resistance. Therefore, it has various uses, such as for the walls of buildings, rail car parts, car bodies, engines, and the housing of PCs and electronics.

(An ultimate tensile strength of 460 MPa, in the form of tubes or cylindrical solid forms with an outside diameter of more than 75 mm)



Civilian use

Aerospace, transport machinery

Use of concern

Constructional material for rotor of centrifugal machine

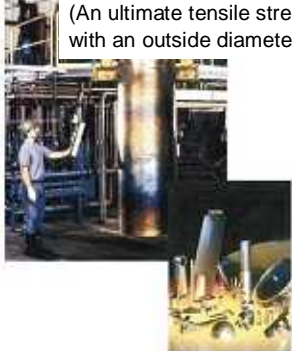
**It is controlled in NSG and WA.**

## Titanium alloy

The characteristics of titanium alloy are:

It is easily processed and resists corrosion. Another characteristic of titanium alloy is that if aluminum or iron is added it becomes stronger (corresponding to very-high-strength steel). Its' possible operating temperature is between -198 and 480 degrees. So this alloy is often used for supersonic aircraft, jet engines and space rockets.

(An ultimate tensile strength of 900 MPa, in the form of tubes or cylindrical solid forms with an outside diameter of more than 75 mm)



### Civilian use

Machines for transportation, golf club shafts, medical devices

### Use of concern

Construction material for rotor of centrifugal machine

## Maraging steel

Maraging steel is a special steel developed for construction materials for aerospace and it contains Ni and Co of more than 30% and low carbon (less than 0.03%). Some characteristics of maraging steel are less deformation, less coefficient thermal expansion, and ability to withstand extreme cold temperature.

### Civilian use

Die-casting

### Use of concern

Construction material for rotor of centrifugal machine



**It is controlled in MTCR**

## Frequency changers

It is an electronic device that converts the alternating current (AC) of one frequency to the alternating current of another frequency, especially very high frequency.



Civilian  
use

High-speed  
grinding machine,  
high-speed saw,  
etc.

Use of concern

Use related to nuclear  
weapons:  
To supply high  
frequency for rotors  
of centrifugal  
machines

## Carbon fibers

The characteristic of carbon fibers are:  
Abrasion-resistance and heat-resistance properties, heat-stretch  
property, acid-resistance, electrical conduction property and tensile  
strength. And it is lighter than aluminum.



Civilian  
use

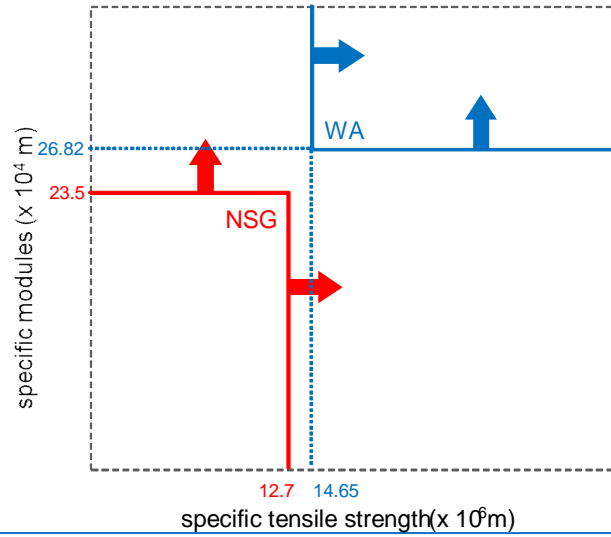
Sports goods (golf  
club shafts,  
tennis rackets,  
etc.)

Use of concern

Use related to  
nuclear weapons:  
Construction material  
for rotors of  
centrifugal  
machines

**It is controlled in NSG and WA.  
Resaturated pyrolised (i.e., carbon-carbon)  
components are controlled in MTCR.**

## Regulated carbon fibers in NSG and WA



## (6) Examples of control items (Computer)

## Computers

### Is your PC controlled?

4.A.1. Electronic computers and related equipment, having any of the following and "electronic assemblies" and specially designed components therefore:

a. Specially designed to have any of the following:

1. Rated for operation at an ambient temperature below 228 K (-45 ° C) or above 358 K (85 ° C); or

...

2. Radiation hardened to exceed any of the following specifications:

- a. Total Dose 5 x 10<sup>3</sup> Gy (Si);
- b. Dose Rate Upset 5 x 10<sup>6</sup> Gy (Si)/s; or
- c. Single Event Upset 1 x 10<sup>-7</sup> Error/bit/day.

...

4.A.3. "Digital computers", "electronic assemblies", and "electronic assemblies" and specially designed components therefore, as follows and specially designed components:

...

4.A.3.b. "Digital computers" having an 'Adjusted Peak Performance' ('APP') exceeding 1.5 Weighted TeraFLOPS (WT);

Under severe conditions

High performance

*Extraction from WA list (Category 4)*

Importance of Export Control for Companies/ <http://www.wassenaar.org/controllists/index.html>

-41

## (7) Examples of control items (Sensor)

## Sensor

It is a device that reacts to light, heat, pressure, etc.

### Civilian use

- ▶ Sensor fish-finders
- ▶ Night vision for automobiles
- ▶ Port security systems

### Use of concern

- ▶ Sonar
- ▶ Night Vision



## Summary

- Export control is the basis of smooth economic activities and an international trend.

Introducing export control creates new investment and business opportunities.

- If the performance of dual-use items are increased, their usefulness expands.

Increasing importance of export control of dual-use goods

- The Japanese government supports the creation of export control systems overseas by conducting outreach activities.

*Thank you for your attention.*

Security Export Control Policy  
Division, Trade and Economic  
Cooperation Bureau, Ministry of  
Economy, Trade and Industry  
(METI)