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Brochure on the Nuclear Export and Import Control System



Nuclear Safety and
Security Commission



Korea Institute of Nuclear
Nonproliferation and Control

Korea's Nuclear Export and Import Control secured by NEPS

**Nuclear Export and
ImPort Control System**

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Introduction to Nuclear Export and Import Control

① Strategic Items

- Goods (materials, facilities, equipment, components), software and technology that could be diverted for the production, development or use of Weapons of Mass Destruction (WMD) and their means of delivery (missiles), thereby threatening international peace and national security.



② Export Controls

- A government legislation that reviews in advance whether an export item could be diverted to WMD-related end uses by entity list such as countries of concern or terrorist organizations, and manages such risks through export licensing and other measures.
- Export controls are necessary to prevent such actors from acquiring materials, equipment, components and technology needed to develop or produce WMD.

Multilateral Export Control Regimes

- To prevent the diversion for WMD, the international community has established guidelines for export controls of strategic items through multilateral treaties for non-proliferation and UN Security Council resolutions.
- Four multilateral export control regimes established their own control lists and guidelines which participating states implement through national legislation.

Multilateral Non-Proliferation Treaties and UN Resolutions

① Treaty on the Non-Proliferation of Nuclear Weapons (NPT)

Non-Proliferation of nuclear weapons, nuclear disarmament, and peaceful uses of nuclear energy

② Biological Weapons Convention (BWC)

Prohibition of the production, development and use of biological weapons

③ Chemical Weapons Convention (CWC)

Prohibition of the production, development and use of chemical weapons

④ Arms Trade Treaty (ATT)

Establishment of international standards for regulating trade in conventional arms and preventing illicit transfers

⑤ UN Security Council Resolution 1540

Obligation of all UN member states to implement export control of strategic items

Four Multilateral Export Control Regimes

① Nuclear Suppliers Group (NSG)

Trigger List items and dual-use items related to nuclear weapons, etc.

② Australia Group (AG)

Chemical and biological weapons-related items and dual-use items, etc.

③ Missile Technology Control Regime (MTCR)

Missile systems and unmanned aerial vehicle (UAV) systems capable of delivering WMD, etc.

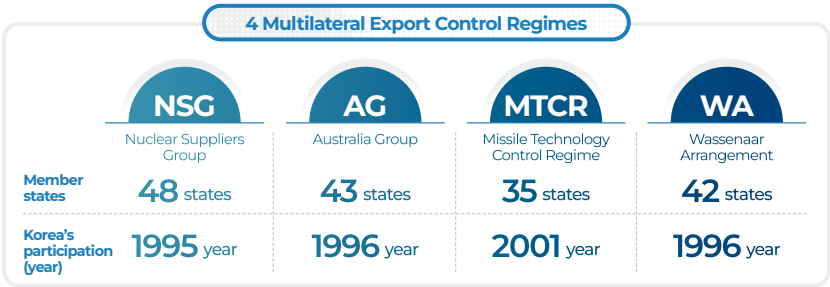
④ Wassenaar Arrangement (WA)

Conventional arms and dual-use items, etc.

- Multilateral controls are essential because WMD programs cannot be advanced by one state alone; they are often pursued through international trade and cooperation.

Korea's National Export Control Framework

- Korea participates in all four regimes, incorporating their control lists and guidelines into national laws (Foreign Trade Act, Nuclear Safety Act, Defense Acquisition Act, etc.).



- The export license for the Strategic items are granted by: the Nuclear Safety and Security Commission (NSSC), the Ministry of Trade, Industry and Energy (MOTIE), and the Defense Acquisition Program Administration (DAPA). Item-by-item jurisdiction is set out in the Public Notice on Trade of Strategic Items.
- The NSSC administers export controls for Trigger List items.

Competent Authorities	 Ministry of Trade, Industry and Energy (MOTIE)	 Nuclear Safety and Security Commission (NSSC)	 Defense Acquisition Program Administration (DAPA)
Legal Basis	Foreign Trade Act	Nuclear Safety Act Foreign Trade Act	Defense Acquisition Act
Controlled Items	Dual-use Items <ul style="list-style-type: none">• Nuclear• Missiles / Aerospace• Chemical and Biological Weapons• Conventional Arms	Trigger List Items	Military List Items
Regulations	Public Notice on Trade of Strategic Items (Annex 2, Parts 1-9)	Public Notice on Trade of Strategic Items (Annex 2, Part 10)	Enforcement Decree and Rules of the Defense Acquisition Act

* Decisions on exports/imports of strategic items to/from North Korea are handled by the Ministry of Unification.

Overview of Korea's Nuclear Export/Import Controls

① System

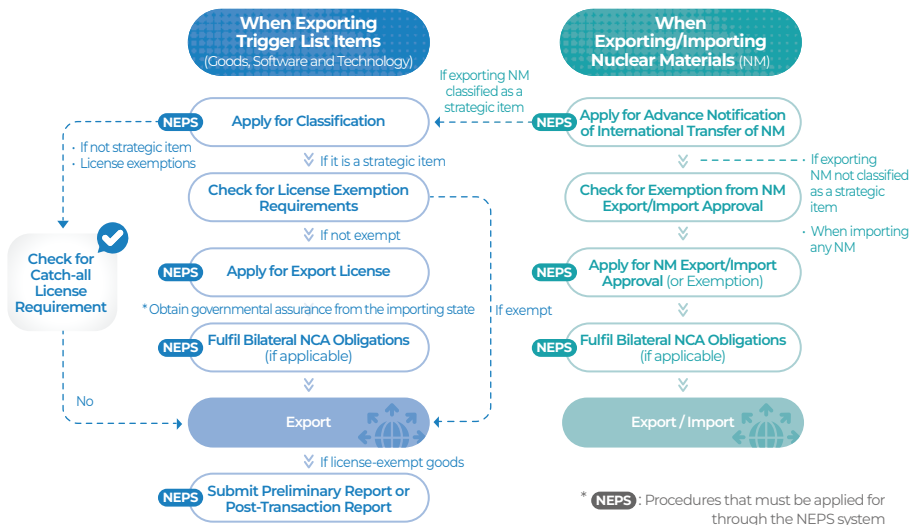
- The government reviews in advance and authorizes/approves exports/imports of Trigger List items, software and technology

② Scope

- There are two categories of nuclear-related items subject to control: (i) Trigger List items, based on the NSG guideline, and (ii) Internationally regulated items, pursuant to the Bilateral Nuclear Cooperation Agreements and agreements with the IAEA. Although the legal bases differ, the specific items covered are largely similar.

③ Implement Procedures

- When exporting or importing nuclear-related items (Trigger List items and internationally regulated items), the following procedures must be implemented. For details on each procedure, please refer to Chapter 2.



Trigger List Items

- Trigger List items refer to nuclear material and items such as facilities, equipment, and materials related to the nuclear fuel cycle, as well as the software and related technology required for the production or development, use of such items.



Reactor and Internal Structures

Source: KEPCO KPS



Nuclear Fuel Assembly

Source: KEPCO NF (KEPCO Nuclear Fuel)



Steam Generator

Source: Doosan Enerbility



Reactor Core-related Code



Reactor-grade Graphite



Uranium Ore Concentrate (UOC / Yellowcake)

Source: DEAN CALMA, Wikimedia Commons



Reactor Design Drawings

- Trigger List items are stipulated in Annex 2, Part 10 of the Public Notice on Trade of Strategic Items, and are classified into five categories (0A–0E) as follows.

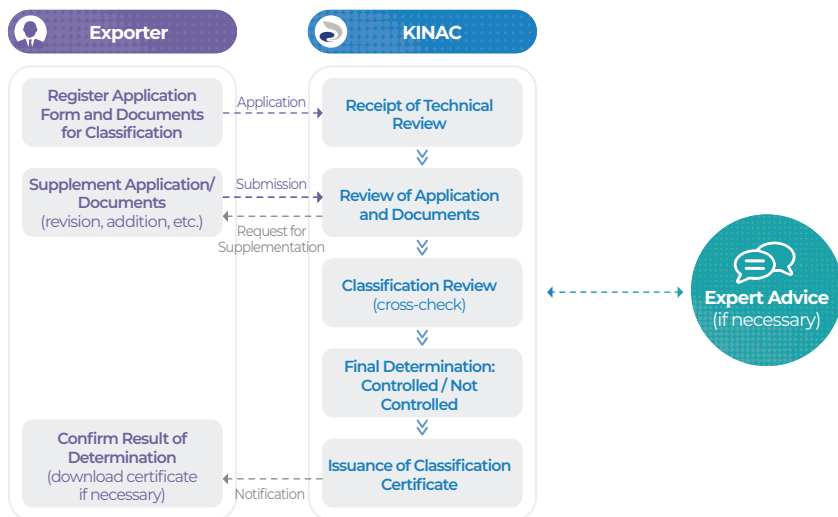
Category	Item	Description
0A	Systems, Equipment and Components	Nuclear reactors, reactor vessels, fuel charging and discharging machines, reactor control rods and equipment, reactor pressure tubes, nuclear fuel cladding, primary coolant pump or circulators, reactor internals, heat exchangers, neutron detectors, external thermal shields, etc.
0B	Test, Inspection and Production Equipment	Nuclear fuel fabrication plant, enrichment plant, uranium conversion plant, heavy water production plant, etc.
0C	Materials	Source material (natural uranium, depleted uranium, thorium, etc.), special fissionable material (plutonium, enriched uranium, etc.), deuterium and heavy water, nuclear-grade graphite, etc.
0D	Software	Software required for the production, development, or use of controlled items (0A–0C).
0E	Technology	Technology required for the production, development, or use of controlled items (0A–0D).

Classification

① Overview

- A classification refers to the process of requesting the Korea Institute of Nuclear Non-Proliferation and Control (KINAC), the designated authority, to determine whether an export item falls under the category of Trigger List items.
- If it is classified "Trigger List Items", an export license is required.

② Classification Procedure



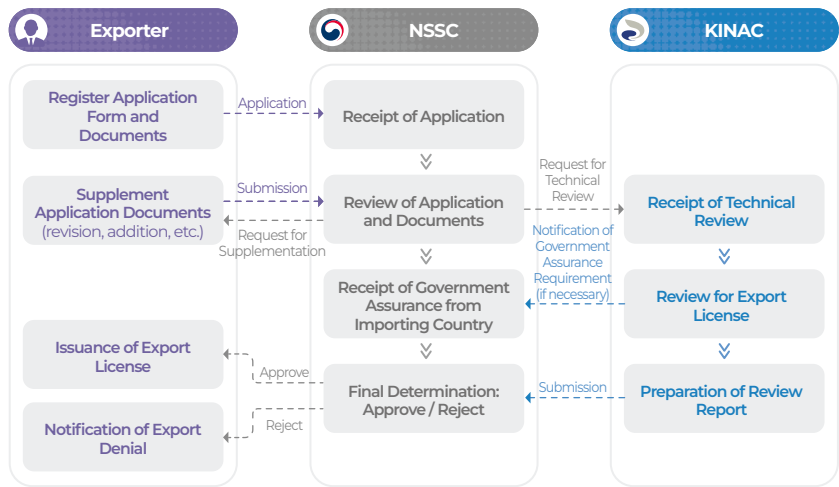
Application Documents	Application form for classification, documents describing performance, purpose and technical characteristics of the item (e.g., manuals, product catalogues, specifications, etc.)
Processing Time	15 business days * Supplementation of documents and expert consultation period are not included.
Validity Period	2 years from the date of determination
Application Method	Online application via the Nuclear Export/Import Control System (NEPS)

Export License

① Overview

- A licensing system administered by the competent government authority prior to export of the item.
- If the item is classified as "Trigger List Items", NSSC licensing is required for export (transfer, transit, trans-shipment or brokering).

② Export Licensing Procedure



Application Documents	Export contract, exporter's statement, end-user's statement, etc. * Depending on the type of license and item, the required documents may vary.
Processing Time	15 business days * Supplementation of documents, technical review, consultation with related ministries, and receipt of government assurances of the importing country are not included.
Validity Period	1 year from the date of issuance
Application Method	Online application via the Nuclear Export/Import Control System (NEPS)

* Depending on the trade type, a catch-all/brokering/transit/trans-shipment license may apply.

Nuclear Cooperation Agreements (NCAs)

① Overview

- Nuclear Cooperation Agreements (NCAs) set forth the obligations that must be fulfilled when transferring nuclear material and other nuclear-related items between two countries.
- When transferring items subject to the bilateral NCAs, or re-transferring them to a third country, compliance with the obligations under the agreement is required. (transfer), transit, trans-shipment or brokering.

② Export/Import Obligations

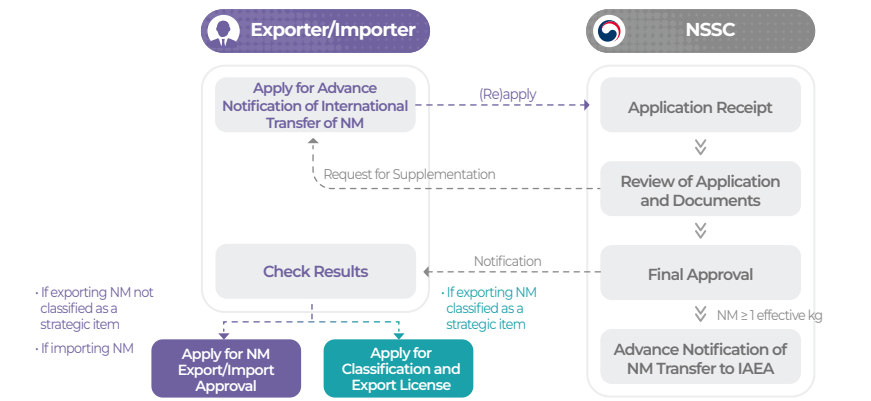
- With the United States, Canada, Australia, and the UAE, subsidiary administrative arrangements have been concluded to stipulate detailed procedures necessary for the implementation of the agreements.
- The items subject to the NCAs are as shown in the table below, and any party intending to export or import such items must follow the procedures specified in the administrative arrangements. When these procedures under the agreements and administrative arrangements are fulfilled, the lengthy process of receiving a government-to-government assurance from the importing country, which is normally required at the time of export licensing, can be omitted.

Advance Notification of International Transfer of Nuclear Material

① Overview

- Under Korea's Comprehensive Safeguards Agreement (CSA) and Additional Protocol (AP) with the IAEA, international transfers of nuclear material must be reported.
- Exporters/importers must report the relevant details to the Nuclear Safety and Security Commission (NSSC) within the prescribed period via NEPS.

② Procedure for Advance Notification



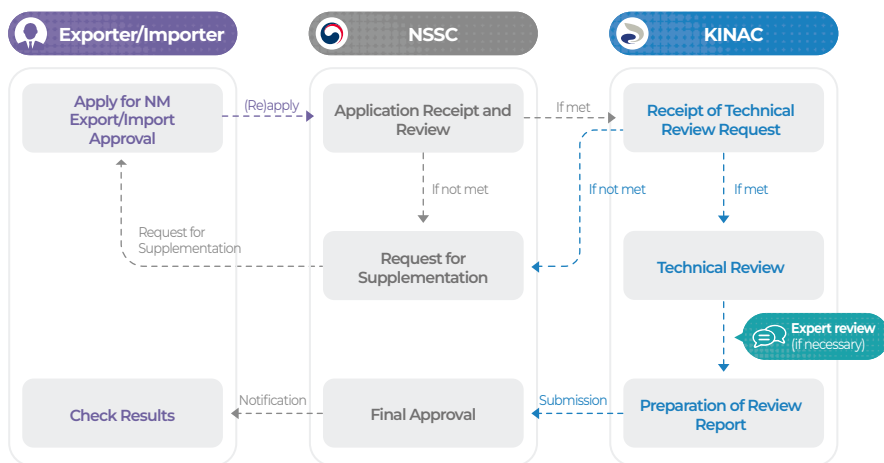
Scope	All nuclear materials to be exported or imported
Required Documents	Documents certifying information on nuclear materials
Details	Form, quantity, destination, means of transport, receipt plan, etc.
Deadlines	<ul style="list-style-type: none">• Nuclear material ≥ 1 effective kg : 4 weeks prior to shipment(Export)/unpacking(Import)• Nuclear material < 1 effective kg : 2 weeks prior to shipment(Export)/unpacking(Import)• Any changes after initial report must be reported immediately
Application Method	Online application via the Nuclear Export/Import Control System (NEPS)

Nuclear Material Export/Import Approval

① Overview

- When exporting or importing nuclear material, the NSSC approves whether conditions are met, including fulfilment of international obligations and eligibility to use the material.

② Approval Procedure



Scope	<ul style="list-style-type: none"> Import : All nuclear materials Export : Nuclear materials not classified as strategic items
Required Documents	Documents certifying export/import transaction and nuclear material information
Details	7 business days
Deadlines	1 year from the date of issuance
Application Method	Online application via the Nuclear Export/Import Control System (NEPS)

* Application for approval is available after completing the advance notification of international transfer.

Understanding Technology related to the Trigger List Items

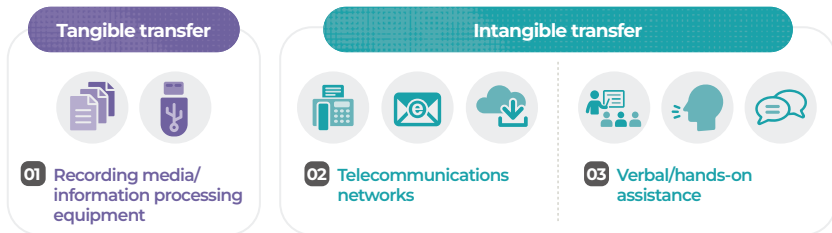
In case of technologies, not only technical documents, but technical assistance delivered verbally or through practical activities is subject to control.

① Overview

- "Technology related to the Trigger List Items" means specific information required for production or development, use of Trigger List items as set forth in Annex 2, Section 10 of the Public Notice on Trade of Strategic Items.

② Measures of Technology Transfer

- Technology may be transferred in the following three ways



③ Scope of Transfer

- The scope of technology transfer falls into the following three categories. Both transfers abroad and transfers from Korean nationals to foreign nationals are subject to control.



④ Types of Technology Transfer

- The "Guidance on Export Licensing for Technology Transfers Related to Trigger List Items" (Annex 13-2) subdivides controlled transfer modes into 14 categories.
- If such transfers are planned, request a prior Classification to determine licensing requirements.



Transfer through the employment of foreign nationals



Transfer through research activities or service contracts



Transfer through visits of foreign nationals to institutions



Transfer for the purpose of contract conclusion



Transfer through education, training, or consultancy



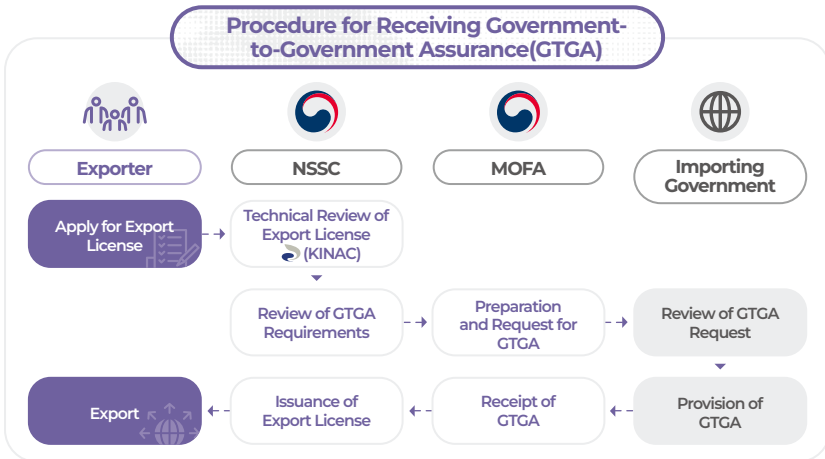
Transfer through inspection, replacement, repair or maintenance at overseas nuclear facilities

Government-to-Government Assurances for Export Licensing

The government-to-government assurance procedure may take considerable time. Exporters of Trigger List items should take the required processing time into account.

① Overview

- Export licensing requires an official assurance from the importing government that the items will be used only for peaceful purposes.
- The request and receipt of such assurances follow the procedures below and may take a significant amount of time.



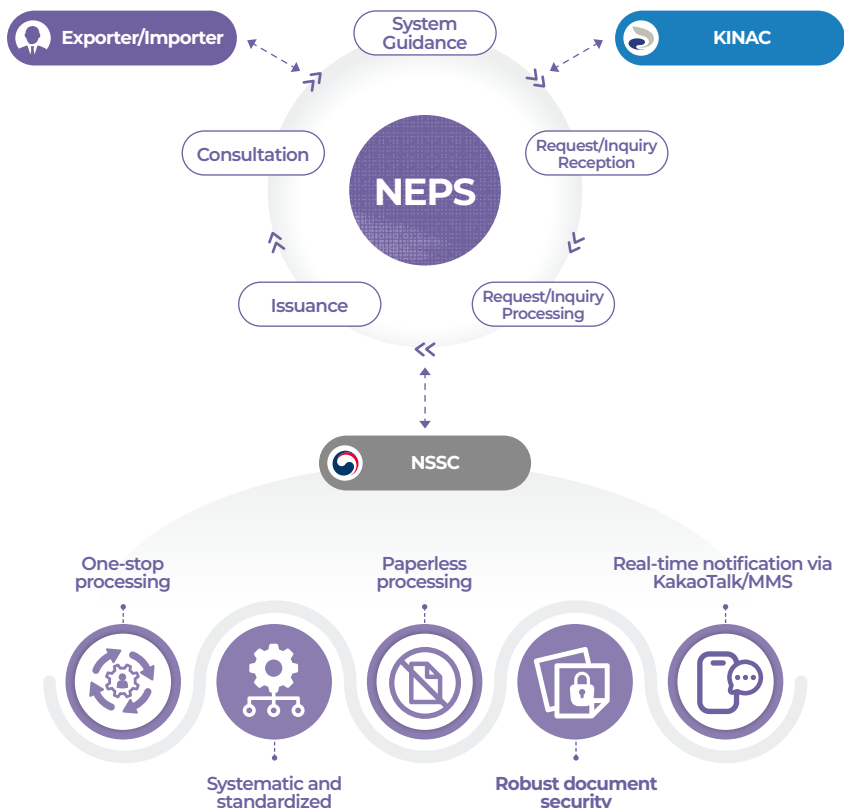
② Exceptions to Government-to-Government Assurance

- The procedure may be omitted if separate transfer procedures are carried out under a bilateral NCAs.
- In addition, certain conditions allow the omission of assurances when the item to be exported is "technology."

NEPS: Nuclear Export and Import Control System

Nuclear Export and imPort control System
"www.neps.go.kr"

All administrative services to implement the national nuclear export/import control regime are handled in NEPS.



Pre-consulting Service for Export/Import Controls

The first step for a smooth nuclear export process is to receive 'Pre-consulting on Nuclear Export/Import Control' from the NSSC/KINAC.

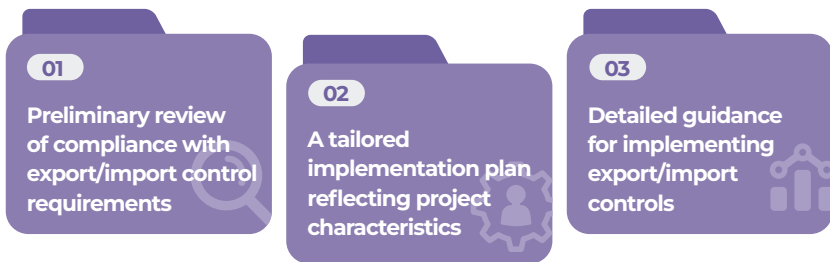
① Eligible

- Domestic entities pursuing nuclear exports/imports, including nuclear power plants.

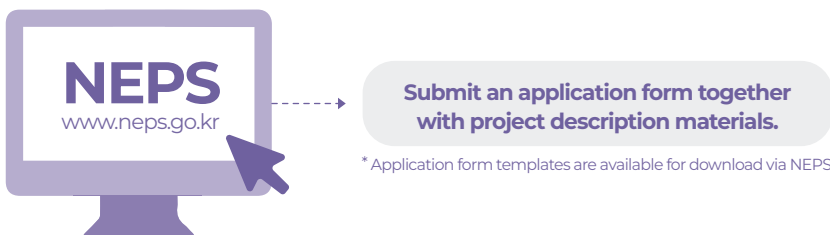
② When

- Recommended as early as possible once a project is confirmed.

③ Scope of Consulting



④ How to Apply



* Application form templates are available for download via NEPS.

⑤ Pre-consulting Process

