

A Study on Efficient Implementation Plan of KAERI Export and Import Control System

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1. Introduction

KAERI fulfills its import and export obligations for strategic materials in accordance with domestic laws. Strategic items are goods, software, and technologies available for the manufacture, development, use, or storage of weapons of mass destruction and their means of transport, missiles. The purpose of export and import controls is to prevent or block strategic items in a particular area from entering the hands of non-state actors as terrorist group. This is Non-proliferation Control. For non-proliferation control, ROK implements its obligations to control exports and imports by complying with the notification of export and import of strategic items in accordance with the Nuclear Safety Act and the Foreign Trade Act.

Nuclear export control items within the strategic items export and import notification are classified into Trigger list items and dual-use items, as shown in Table 1, depending on their use. KAERI has complied with domestic law and implements the export and import control obligations. To this end, KAERI's Export and Import control system was established to efficiently perform the import and export obligations within the institute in 2020. This paper will deal with the current status of the Export and Import control system established within KAERI and the need for continuous improvement.

Division	Trigger List	Dual-use Items
Concept	The production of nuclear materials and materials that can be used to make nuclear weapons. Facilities, equipment, materials, etc.	Items that are intended for general industrial use but can be used in nuclear development programs or nuclear fuel cycles
Applicant Institution/ Government approved Institution	Korea Institute of Nuclear Nonproliferation Control(KINAC) Nuclear Safety Commission(NSSC)	Korean Security Agency of Trade and Industry(KOSTI)/ Ministry of Trade, Industry and Energy (MOTIE)
Online System	NEPS(KINAC's Strategic Item Management System)	YESTRADE(KOSTI's Strategic Item Management System)
Export Control Application	Classification Judgement / Export license	Classification Judgement , Self-classification Judgement (Only items) / Export license

Table 1. Types of KAERI Export Control Items

2. Status of Strategic Items Export and Import control at KAERI

2.1. Operation status of KAERI Export and Import Control System

The application process within the Atomic Energy Research Institute for Trigger List items is shown in Fig.1.

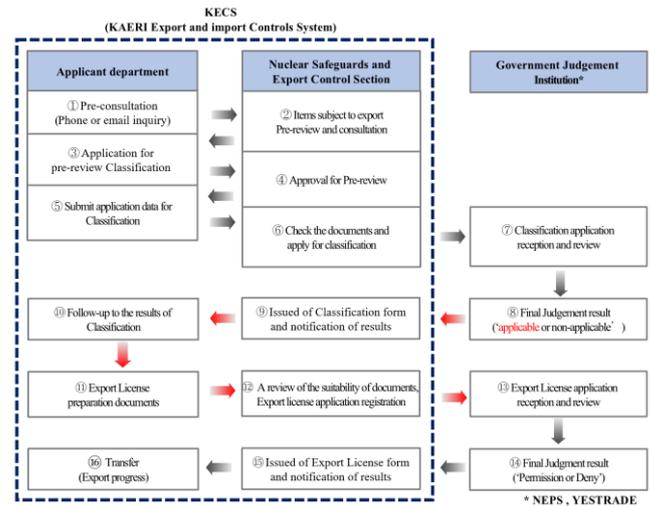


Figure 1. Operation status of KECS

As mentioned in the introduction, the strategic items judging institution is divided two places. It is the Korea Institute of Nuclear Nonproliferation And Control(KINAC) and Korean Security Agency of Trade and Industry(KOSTI). Before applying to these two Places, an application must be made through Nuclear Materials and Technology Control Team.

In 2020, KAERI's Nuclear Materials and Technology Control Team introduced the new export and import control system for smooth application and management. It is KAERI Export and import Control System (KECS). This system is export and import control of strategic items at KAERI, and the applicant and the person in charge are able to control and follow-up the progress in real time. In KECS, the input contents required for judgment by the examination agency were implemented almost the same.

In particular, if the batch registration form is stored in License Application on Technology Export of Nuclear Plant Classification, it can be implemented on the screen. When registering results, you can upload the result file Excel and match the product name to automatically enter the result value. When an export or import of a substance or technology occurs, the first thing to do is to contact our team. After guiding the application documents, the application is made through Nuclear Safeguards and Export Control Section final reviews. To the next, the review is completed in the internal network, the data is transferred to the external network and the application is made. Then, an

application is made to the NEPS, and data can be supplemented in this process.

Through this progress, when the judgment is completed through this process, the result is notified. Application data and issued documents are managed by date, and the export/import control history is stored in a DB.

2.2 The need for continuous improvement of KECS

In order to meet the user's requirements, it is necessary to minimize work delays through maintenance operations and response to errors. In addition, KECS aims to maintain consistency across the environment and reduce the workload of practitioners by systemizing daily management tasks.

Through this system improvement, the following advantages can be obtained. The advantages include reduced risk in terms of security and compliance. And freeing up time for strategic planning.

3. Conclusion

The system currently built in the KAERI was built in 2020 and has been in use for about 3 years. The number of license Application on Technology Export of Nuclear Plants are expected to increase further in the future, and follow-up management through quarterly reports is expected to be systematic.

KECS implemented the same government agency system NEPS and YESTRADE. This has a great advantage in that researchers can continue their work smoothly. In 2020, the Export and import Control System (KECS) was established and continuous improvement is being made, increasing the work efficiency of applicants and practitioners. Previously, system errors were frequent, but now they are minimized and have decreased to around 10 cases per quarter. And as regulations on domestic and foreign export controls are strengthened, the number of export control applications and inquiries is also increasing internally by researchers. In fact, the average number of applications for export permits for strategic materials is 230 every year, and applications are steadily being made.

Also, the purpose of KECS is to minimize the risk of illegal Exports and Import Control of technologies and items at KAERI. We will continue to make improvements so that the simplification of work for applicants and practitioners can be realized within KECS.

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