A Study on the Systematization of Classification Process for NSG Trigger List Items

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1. Introduction

In 1978, Nuclear Suppliers Group (NSG) was established to prevent nuclear items from being used for nuclear weapons. NSG drew up the NSG Guidelines (INFCIRC/254) [1] that regulates export control items (so-called NSG trigger list items) and procedures. NSG recommends its member countries to reflect these guidelines on their export control systems and fulfill their obligations.

Korea has carried out export controls on nuclear items by reflecting NSG Guidelines on Notice on Trade of Strategic Item [2] of Foreign Trade Act [3] since joining NSG in 1995.

Nuclear export control starts with Classification that determines whether export items can be used for strategic items (goods and technologies that can be exclusively used for the manufacture, development and use of WMD). The standard of Classification is based on the NSG Guidelines.

However, due to the qualitative characteristics of the Guidelines, there take place lots of difficulties in the Classification. Thus this study aims to suggest the systematic Classification process.

2. Analysis Results

When export control list items are decided, it is natural to specify qualitative characteristics, such as performance, size and weight. However, NSG Guidelines has a special concept called 'EDP'

EDP (Especially Designed or Prepared) means to be specially designed or prepared for specific items or purposes. EDP has qualitative characteristics. Particularly speaking, the objective of EDP is to prevent NSG member countries from deliberately deviating from the control list on the basis of a quantitative standard and to comprehensively include technological levels each member country possesses.

However, NSG and the international community don't suggest clear criteria for this standard. They recommend each NSG member country to establish its own standard and control strategic items. As a result, whether certain identical items are strategic items or not may vary depending on reviewers' experience and knowledge and political directions. It causes lots of confusion among examiners and exporters [4].

Therefore this study systematized Classification process for NSG Trigger list items (goods and technologies) by comprehensively analyzing experiences of classification, NSG Guidelines and foreign export control cases.

2.1 Classification Process for Goods

Classification for goods is begun by checking whether or not they are specified in the NSG Control List. Although some goods are found in the control list, it needs to check if they are prototypes as the next stage. Interestingly, some Classification cases show that prototypes are manufactured with several different purposes.

When they are not prototypes, they can be classified into strategic items. However, even when they are prototypes, their possibility to be diverted to WMD should be double-checked.

When goods are not specified in NSG Control List, it is still required to check what system (category and origin) it belongs to. It could make mistake decision when the classification is simply limited on goods because the system can be used for WMD.

In addition to the system, it is also necessary to check the NSG Trigger List Handbook [5]. This handbook explains about NSG trigger list items along with some examples. If some goods can be checked in the book, they can be strategic items. Classification process for goods can be summarized as shown in Fig. 1.

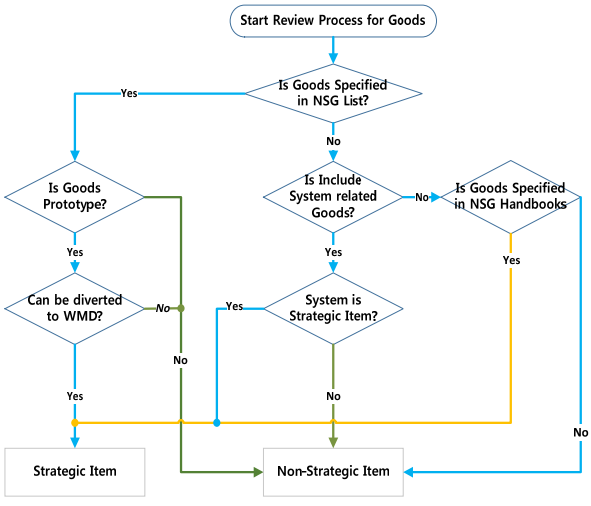

Fig. 1. Diagram of classification process for Goods

2.2 Classification Process for Technologies

Classification Process for technologies is quite complicated due to its characteristics. The first step is to identify that which goods are related to the technology that will be classified. Then, whether the goods are strategic items could be determined through the process established in 2.1. When the related good is not specified in NSG Control List, the technology can be determined as non-strategic item.

However, it is required to check the characteristics of its technology itself when the related good is strategic item. First of all, when the technology can be found in the public domain, officially released by the government or some agencies, it is not necessary to control the technology. Besides, some technologies can be excluded from the control list when anyone can easily obtain them, especially on the Internet.

When technologies are experiments or theoretical basic science researches and still in a level not connected to commercialization or practicalization, they should be non-strategic items. It is to protect experiments or researches as pure studies from export control hindering scientific technology development.

Lastly they can be determined as strategic items when they include detailed information for the development, manufacture and use of NSG trigger list items because it is not necessary to control simple technologies such as manuals, instructional and illustrative data. Yet, it still needs to carry out a further detailed study on how far the detailed information of technology should be included. Classification process for technologies can be summarized as shown in Fig. 2.

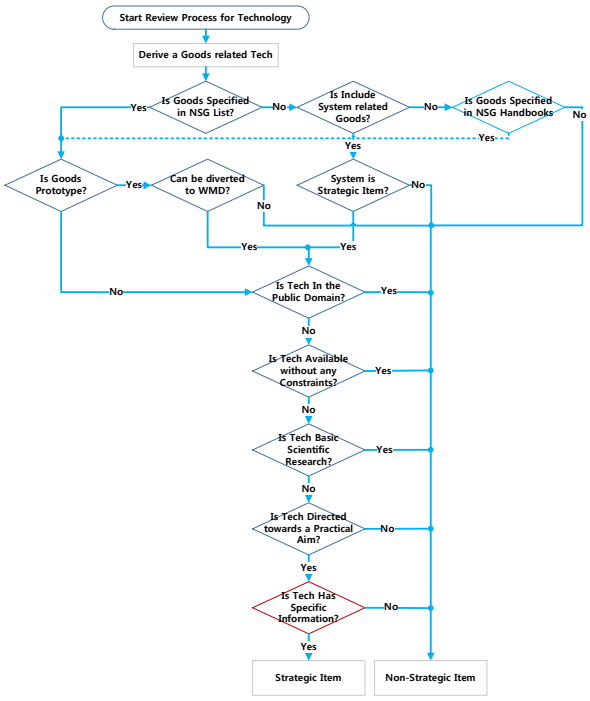

Fig. 2. Diagram of classification process for Technologies

3. Conclusions

Recently, the number of Classification requests is rapidly increasing due to the UAE commercial nuclear power plants and the Jordan reactors export. It is required to provide a more systematic Classification standard and process in order to provide an efficient and consistent Classification.

Thus, this study analyzed limitations of EDP which causes difficulties in the process of classification due to its qualitative characteristics. Besides, it established systematic Classification process by quantitatively analyzing EDP. Consequently, it is expected that the results of this study will be used for as actual Classification.

It still remains to establish a criterion of detailed information, which is one of the most important in the Classification for technology. Therefore, a further study will be conducted to establish a criterion of detailed information by analyzing Classification cases through the text mining techniques.

REFERENCES

[1] IAEA, Guidelines for Nuclear Transfers, INFCIRC/254 /Rev.1/Part1, 1992.
[2] Ministry of Knowledge and Economy, “Notice on Trade of Strategic Items”, Notice No.2011-47, Mar.16, 2011.
[3] The National Assembly of the Republic of Korea, “Foreign Trade Act”, Act No.10231, Apr.5, 2010.
[4] JaeWoong Tae, DongHoon Shin, A Study on the Systematization of Commodity Classification, Transaction of Korean Nuclear Society Autumn Meeting, Oct.25-26, 2012.
[5] U.S. Department of Energy/National Nuclear Security Administration, NSG Trigger List Handbook.