

Analysis on the Retransfer provisions of the Korea-Japan Nuclear Agreement

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1. Introduction

A Nuclear Cooperation Agreement (hereafter referred as NCA) between the Governments of Korea and Japan [1] has come into effect in January 2012. During the negotiations between two Governments for the Agreement, retransfer conditions of the Trigger List items of the NSG Guidelines and its derived were addressed as an important issue. In this article, the relevant provisions of the Guidelines and the Agreement were compared to analyze the impact of the conclusion of the Agreement.

2. Retransfer Provisions of the Korea-Japan NCA

In the preamble of the Korea-Japan NCA, both Governments remind that they are participating governments of the Nuclear Suppliers Group. It represents the will of both Governments to admit the Guidelines [2] as a reference for nuclear trade regulation. As a unique feature of the Agreement, the term "nuclear material recovered or produced as a by-product (hereafter referred as DNM)" is defined as (i) nuclear material derived from nuclear material transferred pursuant to the Agreement, (ii) nuclear material derived by one or more processes from the use of material or equipment transferred pursuant to the Agreement and (iii) nuclear material which the both Governments agree as derived from the use of technology transferred pursuant to the Agreement. Also a specific concept on "the equipment which the Parties agree as derived with the help of technology transferred pursuant to the Agreement (hereafter referred as EBT)" was included in the Agreement.

The interpretations on DNM and EBT result in important parameters to decide the rights of the supplier governing the retransfer of the items subject to the Agreement. In the recent NCAs concluded by the Korean Government such as Korea-UAE NCA[3], retransfer of the transferred items, such as transferred nuclear material, material, and equipment requires prior consent from the supplier. This

requirement is the same as the Japanese NCAs. However, as a widened perception, DNM and EBT are also included as prior consent items for retransfer in the Korea-Japan NCA.

Thus control level of both Governments for the retransfer of transferred items to third nation, i.e. transfer without changing its original status, shows no difference. In addition, control level of nuclear material derived by using the transferred nuclear material or equipment is same in the both States. It means that retransfer of special nuclear material produced as a result of using transferred nuclear material, material or equipment requires prior consent from supplier.

However, the Government of Japan requires prior consent for the transfer of EBT, i.e., equipment produced by using transferred technology, as well as prior consent for the DNM produced by using transferred technology. Korea also treats technology as a subject of retransfer control to coincide with recent trend which categorizes technology as a tangible matter. Yet, Korea has not controlled nuclear material or equipment derived by using technology itself. Although, NSG recommends control tangibles items derived by technology which is intangible, Korea has not applied the recommendation precisely in the bilateral NCAs in the past. This practice is common not only in Korea alone, but also in many states including United States. The requirements on the prior consent from the supplier are compared in Table .1.

Meanwhile, nuclear material as a by-product can be interpreted in two different views. One is to categorize by-product nuclear material as one derived by complete nuclear reactor. The other is to categorize by-product nuclear material as one derived from the nuclear reactor using transferred component. Thus control level of discharged spent nuclear fuel depends on how to categorize by-product nuclear material. However, NSG Guidelines require control not only those from complete reactor but also those from reactor using transferred component. Recently Korea followed the very same NSG recommendation in the bilateral NCAs concluded by Korean Government. The same logic is applied in the Korea-Japan nuclear agreement. Thus it means that

control right of supplier country is expanded to the by-product nuclear material derived by using imported reactor component.

Table 1. Requirements on the advanced consent for retransfer

Categorization of Retransfer		Consent from supplier	
		Korea-Japan Nuclear Agreement	Korea-UAE Nuclear Agreement
Nuclear material/ material/ equipment/ technology transferred		Prior consent required	Prior consent required
DNM	Nuclear material derived from nuclear material transferred	Prior consent required	Prior consent required
	Nuclear material derived by one or more processes from the use of material or equipment transferred	Prior consent required	Prior consent required
	Nuclear material which the both Governments agree as derived from the use of technology transferred	Prior consent required	Not specified in the Agreement (Consent from supplier is not required)
EBT	Equipment which the Parties agree as derived with the help of technology transferred	Prior consent required	Not specified in the Agreement (Consent from supplier is not required)

3. Conclusion

NSG Guidelines recommend control not only nuclear material and equipment itself but also its component and related technology. This recommendation is reflected in the Korea-Japan NCA to categorize technology as a tangible one such as nuclear material, material or equipment. Also major shop-fabricated part of nuclear vessel has been identified as the one of items to be controlled in the Korea-Japan NCA. As a consequence,

control right of supplier country is expanded to the spent nuclear fuel discharged from the reactor using imported reactor vessel head, regardless of the origin of the nuclear fuel. Thus a component categorized as a Trigger List item should be imported with the consideration of balance between economies of civil industries versus unexpected burden on the national fuel cycle strategy.

REFERENCES

- [1] AGREEMENT BETWEEN THE GOVERNMENT OF THE REPUBLIC OF KOREA AND THE GOVERNMENT OF JAPAN FOR COOPERATION IN THE PEACEFUL USES OF NUCLEAR ENERGY, signed on 20 December 2010
- [2] INFCIRC/254/Rev.9/Part 1, Guidelines for the Export of Nuclear Material, Equipment or Technology, IAEA, Dated 7 November 2007
- [3] AGREEMENT BETWEEN THE GOVERNMENT OF THE REPUBLIC OF KOREA AND THE GOVERNMENT OF THE UNITED ARAB EMIRATES FOR COOPERATION IN THE PEACEFUL USES OF NUCLEAR ENERGY, signed on 22 June 2009