

## International Efforts for the Nuclear Security

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### 1. Introduction

Many concerns have been focused on the nuclear security since the 9.11. With increasing the threat related to nuclear material and nuclear facilities, the demand of strengthening the international physical protection system has been raised. Along with this, the international communities are making their efforts to increase nuclear security. The agreement of revising the "Convention on Physical Protection of Nuclear Materials"(hereafter, CPPNM), which was held in Vienna on the July of 2005, was one of these efforts. U.N is also preparing the "International Convention for the Suppression of Acts of Nuclear Terrorism" to show its firm resolution against nuclear terror. It is important to understand what measures should be taken to meet the international standard for establishing national physical protection system. To do this, international trend on the physical protection system such as CPPNM and U.N. convention should be followed. This paper explains about the content of the CPPNM and U.N convention. They will be helpful to consolidate the physical protection system in Korea.

### 2. International Conventions

#### 2.1 CPPNM(Convention on Physical Protection of Nuclear Material)

The CPPNM has been the principle and standard for establishing the international regime of physical protection with international guide for physical protection(INFCIRC/225/Rev.4). It includes basic principles for physical protection of nuclear material such as definition, objective, protection of nuclear material during transportation, international cooperation and legal terms when two countries are involved. After the disintegration of the former soviet union, several illegal trafficking of nuclear material were reported in the newly independent countries from the soviet union. Since then, the demand on the strengthening of the CPPNM has been raised. There were some disagreements among the states on the content of the proposed CPPNM for revision. Through a series of meeting and discussion, final agreement was prepared and it was ratified by the states on the July of 2005. Major revised contents of the CPPNM are as follows.

#### 1) Expansion of objective to be applied

The object of the convention is enlarged from nuclear material to nuclear material and nuclear facility. Due to this, the title of the convention is changed to the

Convention on the Physical Protection of Nuclear Material and Nuclear facilities.

#### 2) Strengthening of physical protection regulation

Twelve fundamental principles for nuclear physical protection approved in the IAEA assembly in 2001 are included in the newly revised convention.

#### 3) Added the intentional commission

Articles on the punishment of sabotage against nuclear facilities and illegal activities to the environment were added.

#### 4) Cooperation between the states

Article on the notification to the neighbor states when there were threats against nuclear materials and facilities was added. According to this article, the states concerned should cooperate each other directly or through the IAEA to protect nuclear material and facilities and to recover the nuclear materials stolen.

#### 5) Use of military force

This article was a main obstacle to reach an agreement among the states during the process of the revision of this convention. U.S had suggested that the activities of armed forces during an armed conflict which are governed by the international humanitarian law should not be governed by this convention. Other states, especially china and Russia, were strongly opposed the U.S' proposed amendments. Through several meetings and discussions, the suggestion of the U.S was finally accepted in the condition that additional paragraph proposed by china was added. '*Nothing in this convention shall be construed as a lawful authorization to use or threaten to use force against nuclear material or nuclear facilities for peaceful purposes*'

#### 2.2 International Convention for the Suppression of Acts of Nuclear Terrorism

This convention was proposed by U.N to cope with nuclear terror which may bring disaster around the globe in 1996. U.N installed the 'Ad Hoc committee on Terrorism' and prepared the draft. The member states of U.N had discussed the draft but the agreement could not be reached. Whether ruling out the use of military force in the convention was a main issue at that time. The amendment to this convention was proposed through a series of expert meeting and it will open to the states for signing beginning on Sep. 14 of 2005. The convention consists of 28 articles and contains all the

things related to nuclear terror from the definition of nuclear material to cooperate among the states. Unlikely the CPPNM which was regulated the measures to protect nuclear material and facilities from any wrong doing, this convention deals only with nuclear terror.

### 3. Relationship with the domestic law

Most of the content of these conventions are included in the law for Physical Protection of Nuclear Material & Facility & Radiological Emergency Preparedness(LPPREP) entered into force on Feb. 16, 2004. There are not many things to be done when these conventions are adopted. However, some areas such as the establishment of Design Basis Threat on the nuclear facilities and in the field of quality assurance should be complemented. Generally, ‘Twelve Fundamental Principle’ is used to decide how well physical protection system of the states is established. Table 1 shows the results of analysis for domestic system in accordance with the ‘Fundamental Principles’.

Table 1. Domestic status of physical protection system

Fundamental Principles	Domestic Status	Fundamental Principles	Domestic Status
Responsibility of the State	E	Threat	C
Responsibilities During International Transport	E	Graded Approach	E
Legislative and Regulatory Framework	E	Defense in Depth	E
Competent Authority	E	Quality Assurance	C
Responsibility of the License Holders	E	Contingency Plans	E
Security Culture	E	Confidentiality	E

Note : E : Established,

C : Necessary to complement domestic system

### 4. Conclusion

International efforts to secure the glove from nuclear threats have been reviewed. IAEA is trying to enhance nuclear security by strengthening the conventional CPPNM and U.N prepares the convention for the Suppression of Acts of Nuclear Terrorism. Our government had realized the importance of the nuclear security and promulgated and entered into force the related law. This law includes most of the contents of these conventions,

so there seems no problem to adopt them to our physical protection system.

### REFERENCES

- [1] A draft of “Convention on the Physical Protection of Nuclear Material and Nuclear Facilities”
- [2] A draft of “International Convention for the Suppression of Acts of Nuclear Terrorism”
- [3] The law for “Physical Protection of Nuclear Material & Facility & Radiological Emergency Preparedness”