

## Round Table Discussion 2

# International Trends on Nuclear Security

**December 4, 2009**

**Vice-president**

**Japan Nuclear Energy Safety Organization (JNES)**

Professor Emeritus, Kyoto University

**Yoshihiro Nakagome**

# What is Physical Protection?

Peaceful use of nuclear material → Non-Proliferation  
(Treaty :NPT)

Concrete measures for NP:

**Physical Protection**

**Prevention of theft of nuclear material and sabotage against nuclear facility**

**Safeguards**

Prevention by state( facilities) of diversion of nuclear material to weapon  
Inspection by IAEA, etc.

**Export Control**

Export Control to non-NPT countries of resources for development of nuclear weapon

# Then , what is Nuclear Security?

In 1970s **Physical Protection**: Prevention of theft of nuclear material and sabotage against nuclear facility

Since the September 11, terrorist attack, physical protection has being shifted to **“Nuclear Security”**

	<b>Material under consideration</b>
<b>Physical Protection</b>	<b>Nuclear material</b>
<b>Nuclear Security</b>	<b>Nuclear material + other radioactive substances</b>

# Definition of Nuclear Security

**AdSec** (Advisory Group on Nuclear Security)/IAEA

*The prevention and detection of and response to, theft, sabotage, unauthorized access, illegal transfer or other malicious acts involving nuclear material, other radioactive substances or their associated facilities*

**Most difficult issue: Insider threat**

**Countermeasures**

**Trustworthiness check for employee .....**

*Solution might not be found eternally ?*

# International trends on Nuclear Security

- a. Preparation and publication of **Nuclear Security Series documents** by IAEA
- b. **Security measures for transportation of radioactive material**
- c. Fostering **Nuclear Security Culture**
- d. Prevention of carrying in/out of nuclear material or other radioactive substances **at national borders “Detection of and response to illegal transfer”**
- e. Concept of **Security-by-Design**
- f. Synergy of **3S**
- g. **WINS (World Institute for Nuclear Security)**

**2010 April Nuclear Security Summit**

# Significance of 3S sent out from Japan

**3S: Nuclear Security, Nuclear Safety,**

**Nuclear Safeguards**(Nuclear Non-proliferation)

*Advocated by Prime Minister, Fukuda of Japanese Government in July 2008 at Toyako Summit*

Issues of Japan : Scarce awareness of nuclear security, what and how 3S could be explained to international nuclear market? Qualification to explain Nuclear Security?

Action for Japan : *a. better perception* on current international status for nuclear security, *b. support* for countermeasures taken by IAEA, *c. establishment of Japan-own nuclear security* (enhance nuclear security governance) , *d. understanding* of position and implication of nuclear security among 3S, and *e. embarkation* on international nuclear market !!