

**Moderator's Summary of the Panel Discussion 1:
"Nuclear security strategies and measures for civil nuclear facilities"**

Through the presentations and the discussions by the panelists, the following key points were raised in the Panel Discussion 1:

1. Under the Discussion Point 1 "Domestic adaptation of the IAEA Nuclear Security Guidelines Series, Nuclear Security Fundamentals and three Recommendation documents"

1. In order to establish security culture, it is not enough to involve individual workers alone but also to make the top management committed and to embed the security culture in the organization itself. The experience of fostering safety culture may be useful in establishing security culture. In this context, education and outreach activities are important and the IAEA has launched INSEN (International Security Education Network) for this purpose. As a regulatory body, the USNRC has published "Safety Culture Policy Statement", a single policy statement that covers both safety culture and security culture, emphasizing that safety and security are equally important;
2. For radioactive materials, a graded approach should be adopted in order to harmonize the use of radiation with nuclear security requirements such as access control.

2. Under the Discussion Point 2 "Nuclear security challenges and lessons learned from the Fukushima nuclear accident"

3. In view of the Fukushima accident, U.S. licensees were asked to review whether a natural disaster would disable the function of additional equipment that has been prepared to meet the B.5.b requirement formulated by the USNRC after the 9/11 terrorist attacks;
4. The EU stress tests conducted in view of the Fukushima accident contains a nuclear security track that does not cover the vulnerability check of an individual plant in a State but requires the general description of a State's legal framework for nuclear security, nuclear security culture in that State, emergency preparedness and so forth;
5. After the Fukushima accident, the main focus of global nuclear security has shifted to include the protection of radioactive materials and nuclear facilities as well as the protection of nuclear materials;
6. Under a prolonged total station blackout, more security guards should be posted in order to counter the nuclear security threat;
7. In EU countries, the United States and Korea, the trustworthiness check of an employee has been an established practice for nuclear facilities and is based on dedicated laws for that purpose;
8. Monitoring staff behavior is also an effective measure to counter internal threats.

3. Under the Discussion Point 3 "Nuclear security strategies and measures for nuclear facilities"

9. From the operators' point of view, the question "How secure is secure enough" is often raised to balance the cost of additional nuclear security and its added effectiveness;
10. Force-on-force drills are carefully planned to minimize the risk of failure, because should they fail, the potential for negative publicity and loss of public confidence is great.
11. The conflicts between safety and security has not yet been resolved for emergency situations;
12. While researchers are required to publish R&D results for the sake of research performance, it is not always possible to publish the results of R&D in the field of nuclear security. The basic policy for disclosing such results should be established;
13. Information sharing with international partners without disclosing specific vulnerabilities is felt to be important;
14. It is not enough to establish a coordination scheme in the case of a nuclear security event, but its effectiveness should be proven through emergency exercises.