

Japan National Progress Report 2016 Nuclear Security Summit

Since the 2014 Nuclear Security Summit, Japan has strengthened nuclear security implementation and built up the global nuclear security architecture by...

...Strengthening Nuclear and Other Radioactive Material Security

- **Taking on the IAEA IPPAS Mission**

In February 2015, Japan accepted to take on the International Atomic Energy Agency (IAEA) International Physical Protection Advisory Service (IPPAS) Mission. The results of its review will be highly beneficial to improve Japan's nuclear security regime. Recommendations and suggestions were fully examined and considered, and currently, Japan is working on how to address them.
- **Strengthening Computer Security Measures at Nuclear Facilities**

The Nuclear Regulation Authority (NRA) regulates computer security at Nuclear Facilities with measures to enhance nuclear security. As part of the nuclear security inspection the NRA has conducted enhanced inspections since 2013 in addition to the existing computer security inspection, and continues to improve capacity in the area of computer security.
- **Efforts to Establish a System to Determine Trustworthiness**

At the Nuclear Security Summit in 2012, Japan announced that it would examine the introduction of a system to determine the trustworthiness of personnel. In October 2015, the NRA decided to establish a new system based on the report by the Committee on Nuclear Security, which is an expert committee under the NRA. Concrete regulations are under examination at the Committee and the NRA is working to establish the system in the near future.
- **Fostering Nuclear Security Culture**

At the Nuclear Security Summit in 2014, Japan announced its commitment to fostering nuclear security culture. In January 2015, the NRA adopted the Code of Conduct on Nuclear Security Culture with five action principles. In addition, the NRA is making efforts to improve nuclear security culture in Japan through education, the personal interviews of operator CEOs by the NRA commissioner, and the making of a video to educate operators and the design of a collection of slogans to foster nuclear security.
- **Strengthening the Security of Radioactive Isotopes**

Regarding the security of radioactive isotopes, Japan established a system to issue export certificates in December 2005, and a registration system of radioactive sources in January 2011 in accordance with domestic laws and regulations. The Committee on Nuclear Security under the NRA is concretely examining measures, as one of the priority issues, to further enhance security in line with the IAEA guidelines, and will issue a report shortly. The

NRA intends to establish a new system based on the report.

- **Strengthening Domestic Transport Security**

Based on the report of the Committee on Nuclear Security, the NRA and the Ministry of Land, Infrastructure, Transport and Tourism (MLIT) of Japan incorporate the transportation security measures in line with the INFCIRC/225/Rev. 5.

...Minimizing Nuclear and other Radioactive Materials

- **Removal of the Nuclear Fuel at the FCA**

Based on the Joint Statement issued at the 2014 Nuclear Security Summit and the Fact Sheet issued at the Japan-US Summit Meeting in 2015, Japan and the United States have completed the removal of all highly-enriched uranium (HEU) and separated plutonium fuels from the Fast Critical Assembly (FCA) of the Japan Atomic Energy Agency (JAEA).

- **Conversion of KUCA from HEU to LEU Fuel**

During the 2016 Nuclear Security Summit, Japan and the United States announced that they would work together toward the conversion of Kyoto University Critical Assembly (KUCA) from HEU to low enriched uranium (LEU) fuel and the removal of all HEU fuel.

- **Plutonium Management Policy**

Japan has been conducting all nuclear activities, in compliance with the NPT (Treaty on Non-Proliferation of Nuclear Weapons) and under IAEA safeguards. The IAEA has also recognized that there is no diversion from peaceful nuclear activities in Japan. On this basis, in recognition of the importance of ensuring transparency with regard to plutonium management, and to obtain an understanding both domestically and internationally, the Government of Japan has published an annual report on "The Current Situation of Plutonium Management in Japan" since 1994, which is more detailed than the international plutonium management guidelines. Japan maintains transparency over its plutonium reserves and manages them appropriately.

The Government of Japan's policies for restarting nuclear power plants, including the policies for the plutonium use in light water reactors, have been consistent. The highly independent NRA makes judgments based on scientific and technical knowledge. Only once the NRA has confirmed the conformity of nuclear power plants with the new regulatory requirements, which are of the most stringent level in the world, will the Government of Japan follow the NRA's assessment and proceed with the restart of the nuclear power plants, after obtaining the understanding of the local population.

In this way, Japan will also firmly maintain its policy of "not possessing plutonium reserves for which the purpose of utilization is unspecified". Japan will steadily use its plutonium reserves and will continue to pay due consideration to the balance between supply and demand of plutonium.

...Countering Nuclear Terrorism

- **Active Participation in the PSI**
Japan has actively contributed to the Proliferation Security Initiative (PSI), by attending Operation Experts Group meetings and joint exercises. Most recently, Japan served as facilitator at the table-top exercise MARU 2015 held in New Zealand last November. In addition, Japan will host an exercise in 2018 as a part of Asia Pacific Rotation Exercises.
- **Promoting Development of Nuclear Security Related Technology (Nuclear Forensics, Nuclear Detection, etc.)**
At the Nuclear Security Summit in 2010, Japan announced its intent to develop technology related to the measurement and detection of nuclear material and nuclear forensics. Since then, Japan has promoted this research and development in cooperation with the United States and the European Union. JAEA has developed basic nuclear forensic analysis technology and, through international collaboration, also has developed a national nuclear forensics library prototype. Japan continues to promote research and development in this area in cooperation with the United States and the European Union.
- **Implementation of Nuclear Security Exercises (Facility, Transport)**
Since the Nuclear Security Summit in 2014, Japan has implemented field exercises based on threat scenarios such as design based threats (DBTs) at all protected facilities. Through these exercises, the facilities could maintain and improve their capacity to respond to a nuclear security event. In addition, since 2014, field exercises to counter cyber-attacks to the control system of nuclear facilities, or including the combination with physical attacks, have been implemented. Japan continues to increase the number of facilities to implement field exercises and enhance the exercise contents. Moreover, Japan conducted two table-top exercises and two field exercises focused on the improvement of transport security from 2015 to 2016.
- **Strengthening the National Regime to Counter Terrorism for G7 Ise-Shima Summit and Tokyo 2020 Olympic Games**
Japan will host the G7 Ise-Shima Summit in May 2016 and the Tokyo 2020 Olympic and Paralympic Games in 2020. In order to prevent terrorists from acquiring nuclear material or other radioactive material, Japan continues to strengthen nuclear security by clarifying the roles of relevant ministries and agencies, enhancing communication plans, and enhancing capacity through joint exercises.

...Supporting Multilateral Instruments

- **Concluding the Amendment to the CPPNM**
Japan concluded the Amendment to the Convention on the Physical Protection of Nuclear Material (CPPNM) in June 2014.
- **Developing Good Practices Guides at the Transport Security Gift Basket**
The Transport Security Gift Basket led by Japan developed good practices guides for air, rail, road, and sea transport modes. Japan will share these guides with other states through

the IAEA and the Global Initiative to Combat Nuclear Terrorism (GICNT) and make use of them for future activities.

- **Outreach to Incorporate International Norms into National Regulations**
Japan has encouraged the ratification of the International Convention for the Suppression of Acts of Nuclear Terrorism (ICSANT), the CPPNM, and its Amendment, as well as incorporating the IAEA recommendations, at international occasions such as the Asian Senior-level Talks on Non-Proliferation (ASTOP), which is hosted by Japan every year for Asian countries. Through these activities, Japan continues to work on universalization of international norms on nuclear security.

...Collaborating with International Organizations

- **Strengthening Cooperation with the IAEA**
Japan has contributed about 900 thousand Euros to the IAEA Nuclear Security Fund since the last Summit. This includes the cost for dispatching cost free experts. In addition, Japan continues to send experts, as needed, for drafting nuclear security series documents and dispatching missions such as IPPAS missions.
- **Strengthening Cooperation between the 1540 Committee and the Global Partnership**
The 1540 Committee works on assistance for match making based on requests from the Member States of the United Nations. In this regard, cooperation between the 1540 Committee and the Global Partnership Against the Spread of Weapons and Materials of Mass Destruction (Global Partnership) which works on the match making of projects to strengthen CBRN security is highly beneficial in terms of efficiency. As the 2016 Chair of the Global Partnership, Japan promotes this cooperation. In addition, the 1540 Committee is working on the Comprehensive Review on the status of the implementation of the United Nations Security Council Resolution (UNSCR) 1540 (2004), as set forth by UNSCR 1977 (2011). Japan, as a nonpermanent member of the Security Council, will actively contribute to the review process to improve the implementation of the UNSCR 1540.
- **Strengthening Cooperation with the GICNT**
Japan has attended all Plenary meetings since its inception and actively joined the discussions. For example, Japan led the discussions on the technical aspects of nuclear forensics, and shared the lessons learned through the accident at TEPCO's Fukushima Nuclear Power Stations. Japan explores how to further contribute to the area of transport security using the good practices guides developed at the Transport Security Gift Basket.

...Partnering with External Stakeholders

- **Human Resource Development at the ISCN**
In recent five years, more than 2,700 personnel joined trainings at the Integrated Support Center for Nuclear Nonproliferation and Nuclear Security (ISCN), the first Center of Excellence (COE) in Asia established by the JAEA in December 2010. The JAEA has advanced

cooperation with the IAEA based on the Practical Arrangement signed in 2013. The ISCN will continue to develop training courses on new agendas such as computer security at Nuclear Facilities and receive 500 personnel per year for human resource development and capacity building.

- Cooperation among COEs in Japan, China, and the Republic of Korea

Based on the Joint Declaration for Peace and Cooperation in Northeast Asia issued at the Japan-China- ROK Trilateral Summit in November 2015, COEs in Japan, China, and the Republic of Korea are consulting with each other to deepen their mutual collaboration. Regional cooperation like this should be promoted in the other regions and Japan will continue to support regions based on their experience in East Asia.

- Efforts as the Chair of the Global Partnership

In 2016 Japan became the Chair of the Global Partnership and also the Chair of its Nuclear and Radiological Security sub-Working Group. Japan, as the Chair of these fora, will work on implementation of the Action Plan in Support of the Global Partnership adopted at the 2016 Nuclear Security Summit.