

RSIS Distinguished Public Lecture by Dr Olli Heinonen, S. Rajaratnam Professor of Strategic Studies, RSIS, Nanyang Technological University, Singapore, on 2 November 2016.

Regional Norms for Cooperation on Nuclear Safety and Radiological Emergency in South East Asia

Safeguards, security and safety are commonly seen as separate areas in nuclear governance. While there are technical and legal reasons to justify this, they also co-exist and are mutually reinforcing in many ways. Safety, security and safeguards are close 'triplets' that have synergetic effects on one another, and contribute to the efficiency and effectiveness of the overall nuclear order. An important norm is for states to adhere to the latest IAEA legal instruments in these fields as well as demonstrate their full compliance with established requirements.

To this end, the Heads of ASEAN states agreed in April 2012 in Phnom Penh to develop a coordinated ASEAN approach that would contribute to global undertakings to improve nuclear safety in cooperation with other partners and uphold IAEA standards of nuclear safety and security in the development of nuclear energy for peaceful use.

Nuclear safety and security are rest on three independent blocks: to prevent a nuclear accident or emergency; to respond and mitigate its consequences; and remediate sites after accidents. These building blocks in turn require a strong safety and security conscious nuclear industry, responsible users of radioactive and nuclear materials, capable and effective nuclear regulators, and stakeholders who reinforce and ensure a robust institutional framework.

Fukushima revealed that no one state is immune from fallacies that resulted both before and after the nuclear accident. The IAEA's reports draw numerous lessons to be learned. And while it is crucial to have rigorous and comprehensive safety standards and tools in place to deliver high levels of safety, an effective and accountable network of institutions and interfaces within the nuclear industry, the regulator and the government needs to be in place to assure that the tools and standards are diligently and effectively applied.

Beyond individual member states, ASEAN members have acknowledged the importance of regional cooperation and facilitation of information sharing and capacity building for those considering civilian nuclear energy. The how, what and when are important questions to drill down in planning such nuclear cooperation.

One such area of progress is already on going. The establishment of ASEANTOM is an important milestone in regional cooperation. This body would continue to benefit from additional arrangements made to integrate the nuclear industry and

other stakeholders to the development and enforcement of the safety network serving the entire region.

There are numerous reasons that call for the enhanced regional cooperation. Each state is responsible for nuclear safety in its territory, but they have to be prepared for accidents, emergencies and incidents, which have an impact across their borders. States also need to be prepared to handle emergencies arising from transportation of nuclear and radioactive materials through or near their territories, as well as preparedness and response capabilities arising from possible terrorist acts. Safe use of nuclear energy requires not only addressing operational safety of nuclear installations and locations handling radioactive materials, but covers also down-the-road issues such as decommissioning of such facilities, management of nuclear and radioactive materials including their final disposal and remediation of contaminated sites.

In addition to the adherence and implementation of relevant treaties, conventions and the IAEA codes of conduct, sharing of best practices and resources together with joint exercises and coordination in the region are vital to build public confidence that nuclear energy is used in a safe and secure manner. To this end it is essential that states use the IAEA peer review services, and makes the findings and recommendations of the IAEA missions available to demonstrate their commitments to nuclear safety and security.