

National Progress Report: Singapore

March 31, 2016

Singapore is firmly committed to working with the international community to strengthen the global nuclear security architecture. We take a serious view of our international responsibilities. In this regard, we fully comply with and implement our international obligations. This includes the United Nations Security Council Resolution (UNSCR) 1540 and other country-specific UNSCRs. Singapore participates in the Proliferation Security Initiative (PSI) aimed at preventing the illicit trafficking of Weapons of Mass Destruction (WMD). In September 2016, we are due to serve on the International Atomic Energy Agency (IAEA)'s Board of Governors for the fifth time. We look forward to this opportunity to work with other Member States to enhance nuclear safety and security as an active member of the Board.

Singapore also consistently supports various regional efforts to build capacity and strengthen collaboration in the area of nuclear security. We participate actively at ASEAN Regional Forum Meetings and regional seminars on export controls and non-proliferation. We also work with the European Union's Chemical, Biological, Radiological and Nuclear (CBRN) Centre of Excellence (CoE) in Southeast Asia on its projects and activities.

On the national front, Singapore is committed to playing our part in countering proliferation. As a major transit and transshipment hub, Singapore has a robust export control system. We subscribe to effective implementation and rigorous national legislation standards, which are regularly reviewed. This is a reflection of our desire to maintain our position as a safe and secure trade and shipping hub, taking into account the evolving security environment.

Following the 2014 Nuclear Security Summit, Singapore has consistently contributed to the enhancement of the global nuclear security architecture through the activities outlined below.

Strengthening the Security of Nuclear and Other Radioactive Material

To ensure the safe and secure use of radioactive materials, Singapore has an effective licensing regime for the import, export, possession, handling, transport, use and storage of radioactive materials. Singapore maintains a national register for radioactive materials to ensure they are properly accounted for.

Singapore works hard to strengthen security measures in local storage sites for radioactive materials. To this end, a working group consisting of home-front agencies and regulators was established in 2014. This working group focuses on:

- a) conducting inspections at storage sites for the security of sensitive materials, including radioactive materials;
- b) assessing the adequacy of existing security measures; and
- c) making recommendations to further improve security at storage sites.

The working group has carried out site inspections at storage sites where higher risk radioactive materials are kept. Appropriate security measures are issued to the licensees for implementation, while compliance is ensured through follow up inspections.

Singapore has also been educating and promoting awareness of nuclear security. Singapore, represented by the S. Rajaratnam School of International Studies (RSIS) of the Nanyang Technological University, became a member of the International Nuclear Security Education Network (INSEN) of the IAEA in July 2014. As an INSEN member, RSIS aims to develop academic courses and conduct training modules in partnership with the IAEA to educate its students on nuclear security policies.

Singapore recognises the emerging cybersecurity threats and risks of cyber-attacks on critical information infrastructure. To boost Singapore's cybersecurity infrastructure, Singapore set up a Cyber Security Agency (CSA), which began operation on 1 April 2015. The CSA is a high-level central agency to coordinate public- and private-sector efforts to protect national systems from increasing cyber threats. Given the trans-boundary nature of cybersecurity threats to critical infrastructure, Singapore recognises the crucial need for like-minded countries to cooperate closely on cybersecurity initiatives, through cooperation between Computer Emergency Response Teams (CERTs), sharing of best practices and procedures, joint training and drills as well as cybersecurity capacity building. CSA has already established close working relationships on these areas with our ASEAN and international partners through existing ASEAN platforms as well as through the signing of MOUs. Singapore also organised and actively participated in a workshop on cyber confidence building measures in the ASEAN region.

To support international law enforcement to counter multi-dimensional, transnational and fast-evolving security threats, Singapore hosts the INTERPOL Global Complex for Innovation (IGCI). The IGCI allows INTERPOL to better disseminate real-time alerts and coordinate operational responses. These alerts also allow member countries to be better placed to stop transnational security threats. The IGCI's focus on innovation enables INTERPOL to further develop advanced tools and training techniques for countries to tackle emerging threats. Law enforcement agencies can access INTERPOL's tools and programmes through the IGCI to better train and equip their officers to combat these threats, thereby enhancing collective regional safety and security around the world.

Minimising Nuclear and Other Radioactive Materials

Singapore has taken a number of measures to fully implement UNSCR 1540. We participated in regional workshops on promoting the full implementation of UNSCR 1540, organised by the Philippines in July 2014 and by the Republic of Korea in October 2014. More details of our efforts can be found in Singapore's reports to the UNSC Committee established pursuant to UNSCR 1540. Singapore submits these reports regularly, which demonstrates our commitment against the proliferation of all WMD and their delivery systems.

Countering Nuclear Smuggling

Singapore's Immigration and Checkpoints Authority Ports Command is equipped with Radiological Portal Monitors to detect cargoes carrying radiological or nuclear consignments. To strengthen our efforts in the area of nuclear detection and nuclear forensics, Singapore has developed its first border laboratory - "Protective, Analytical and Assessment Facility". The laboratory, which is expected to be operational by mid-2016, is equipped with capabilities in radiation-nuclear detection and analysis to interdict illicit activities at the border.

Singapore regularly reviews and updates our export control list to ensure that our system is in line with international practices. This includes the four multilateral export control regimes, namely the Missile Technology Control Regime, Wassenaar Arrangement, Nuclear Suppliers Group and Australia Group. On the domestic front, we regularly organise outreach programmes to ensure that the Singaporean business community is updated on the latest developments and requirements. As a major financial centre and a member of the Financial Action Task Force

(FATF), Singapore is committed to following up on FATF Recommendations to combat proliferation financing.

Support for Multilateral Instruments

Singapore is committed to implementing and fulfilling the obligations of the Convention on the Physical Protection of Nuclear Material (CPPNM) and its 2005 Amendment. To this end, several legislative amendments were made to our Radiation Protection Act. These were passed in Parliament on 7 July 2014. Singapore deposited the instrument of accession and acceptance to the CPPNM and its 2005 Amendment with the IAEA on 22 September 2014 and became a party to the Convention on 22 October 2014. Since then, Singapore has implemented a licensing and monitoring regime to track maritime vessels carrying nuclear material transiting through Singapore's seaports. Singapore also participated in the Technical Meeting of the Points of Contact and Central Authorities of States Parties to the CPPNM in December 2015 to learn the best practices adopted by CPPNM Member States in fulfilling their obligations to the Convention.

As part of our efforts to counter nuclear terrorism, Singapore signed the International Convention for the Suppression of Acts of Nuclear Terrorism (ICSANT) on 1 December 2006. Following Singapore's accession to the CPPNM and its 2005 Amendment, we are working towards the legislative framework necessary to ratify ICSANT in the upcoming months.

Singapore fully supports and endorses the IAEA's efforts to enhance the safety and security of radioactive sources. In this regard, Singapore is working towards following the guidance contained in the Code of Conduct on the Safety and Security of Radioactive Sources. Singapore has been a member of the IAEA Incident and Trafficking Database (ITDB) since 2012. As the National Focal Point for the ITDB, Singapore's National Environment Agency (NEA) disseminates notifications on nuclear/radiological-related incidents filed by Member States to Singapore's Government agencies. NEA also files local incidents to the ITDB.

Collaborating with International Organisations

Singapore is a strong supporter of the IAEA's work in helping Member States strengthen nuclear security. Since 2014, Singapore has been actively participating in various IAEA emergency exercises organised by the Incident and Emergency Centre. These exercises are aimed at testing

arrangements for a transnational radiological emergency, such as sending notifications on the accident and requests for international assistance.

We renewed a MOU for the Singapore-IAEA Third Country Training Programme (TCTP) in January 2015. The Programme provides joint technical assistance to developing countries across a wide range of areas including nuclear security. Singapore is also working with the IAEA to organise a Regional Workshop on Nuclear Law in 2016 under the Singapore-IAEA TCTP, which will cover various topics including the international nuclear legal framework for nuclear security.

Singapore's Ministry of Home Affairs' Chief Science and Technology Officer, Dr Lee Fook Kay, contributed actively as a member of the IAEA's Emergency Preparedness and Response Expert Group. He was also part of the organising committee for the International Conference on Global Emergency Preparedness and Response, which was held from 19 to 23 October 2015 in Austria. At the conference, Singapore presented a paper on nuclear detection technologies entitled "Evaluation Study of High Purity Germanium based Technology in Detection of Radiation Sources at Container".

Partnering with External Stakeholders

As a partner nation of the Global Initiative to Combat Nuclear Terrorism (GICNT), Singapore works with other participating states to strengthen global capacity to prevent, detect, and respond to nuclear terrorism. To enhance our national capability, Singapore attended a workshop on Public Messaging for Emergency Management in the Philippines in April 2015.

Together with China and the US, Singapore co-chaired the first three ASEAN Regional Forum Inter-Sessional Meetings (ISM) on Non-Proliferation and Disarmament, which took place annually from 2009 to 2011. We continue to support this initiative and have participated actively in subsequent ISMs every year.

Singapore was an early supporter of the European Union's initiative to establish the CBRN CoE in Southeast Asia. The CBRN CoE was subsequently launched in Singapore in 2009. Since its inception in 2011, we have participated regularly in the CBRN CoE National Focal Point meetings. Singapore also takes part in related projects, such as on biosecurity, chemical and biological waste management, and e-learning in order to enhance our domestic capabilities. We

have hosted CBRN CoE projects and activities. These include the working session on knowledge development and transfer of best practices on chemical and biological waste management in Southeast Asia in July 2014 and the Regional Experts Meeting on Non-Proliferation Nuclear Forensics for ASEAN states in November 2014.

Through our participation at the annual Asian Export Control Seminars held in Japan, Singapore shares our experiences on reaching out to our domestic industry and working closely together to counter WMD proliferation by maintaining a robust export control regime.

Singapore participates regularly in the annual Asian Senior-Level Talks on Non-Proliferation (ASTOP) meetings in Japan. At the 12th ASTOP meeting held on 20 January 2016, Singapore gave a presentation on our efforts in non-proliferation and counter-proliferation through initiatives such as the PSI.

Singapore is a participant in the PSI and the only Southeast Asian member of the PSI's Operational Experts Group (OEG). We believe that PSI helps to promote more international cooperation in the global effort to combat the illicit trafficking of WMD. The exercises allow participating states to build up critical interdiction capabilities and practices. Singapore has hosted two PSI exercises to-date, each of which was attended by approximately 2,000 participants. We will host a third exercise in September 2016. Singapore also participates regularly in OEG meetings as well as in policy discussions, such as the High Level Political Meetings.