Time for ASEAN to Take Nuclear Security Seriously
By Raymund Jose G. Quilop

With several Southeast Asian nations poised to build nuclear power plants in the near future, the issue of nuclear security must move up on the region’s agenda.

In the past, writes Raymund Jose G. Quilop, ASEAN has been chiefly concerned with keeping nuclear weapons out of the region, but the new era of terror networks requires a firm response from the association.

The Association of Southeast Asian Nations (ASEAN) has done extensive preparatory work on infrastructure, access to fuel supply and waste management. With Japan, the agreement is about the power plant and technology, while that with the French company Areva is to establish two research laboratories.

Indonesia, for its part, intends to have 4 percent of its electricity generated by nuclear energy by 2025. The proposed sites for Indonesia’s nuclear plants are on the Muria Peninsula in Central Java, Banten in West Java and Bangka in South Sumatra. The country requested the IAEA to do an Integrated Nuclear Infrastructure Review in August 2009, which was completed in November of that year. The review attests that Indonesia has done extensive preparatory work on infrastructure issues that would allow it to introduce nuclear power. Previous reports indicated that Indonesia wanted to open a nuclear power plant in 2016-2017, with construction intended to start in 2010, a plan that has been delayed but not stopped. The Indonesian government has reportedly approved the construction of four plants.

Malaysia believes that nuclear energy is necessary to fill its gap between energy demand and supply, although it also acknowledges that renewable energy together with energy efficiency could help fill that gap. Malaysia has a nuclear power development steering committee at cabinet level with three working committees covering programs, project development and regulatory co-ordination. Malaysia’s official nuclear power master plan provides for a 2009-2021 timeline, with preparatory work beginning in 2009 and the first nuclear power plant in operation in 2021, although there are indications that plans have been sidelined temporarily.

It is well known that the Philippines could have been the first country in Southeast Asia to operate a nuclear power plant. Its 620 MW plant was completed in 1985 about 100 kilometers north of Manila, and a batch of nuclear fuel was delivered in 2004. The plant was put on hold in 1986 following a two-year period of high raw material prices, and was eventually abandoned by 2006.

THE ASSOCIATION OF Southeast Asian Nations will, sooner rather than later, have to put nuclear security on its radar. Sadly, however, the issue does not yet figure prominently in the association’s security agenda, even though there are already substantial reasons why the issue should be a priority.

In the next few years, Southeast Asia may well experience what observers often refer to in various conferences and workshops as a “nuclear rennesance.” This was particularly true in two recent workshops that I attended: “Preparing for Nuclear Expansion in Southeast Asia: Frameworks for Effective Co-operation and Enhanced Security,” organized by the University of Canterbury and held in Christchurch, New Zealand, in mid-2009, and “Emerging Nuclear Power in Regional Contexts with a Focus on Southeast Asia,” organized by the American Academy of Arts and Sciences and held in Singapore in November 2010. As a result of the March 2011 events in Fukushima, Japan, we know that even nuclear plants built according to the globally accepted standards of their time are not disaster-proof. Yet despite this fact, Southeast Asian states may soon increase their use of nuclear energy. In fact, the International Atomic Energy Agency (IAEA) estimates that Southeast Asian states will produce 2 gigawatts electrical (GWe) using nuclear technology by 2020.

COMING SOON
Leading the group of ASEAN countries intending to use nuclear energy is Vietnam, which as early as 2006 adopted a strategy to develop nuclear energy. It announced plans to have a nuclear power plant online by 2020, with construction starting in 2010 and commissioning of the plant slated for 2017. Given how things have developed in Vietnam, the targets may actually be met.

Vietnam’s National Assembly passed an Atomic Energy Law in 2008. In 2010, the prime minister issued decrees to implement the law, establishing the National Council on Nuclear Safety and creating a national steering committee to oversee what will be the Ninh Thuan Nuclear Power Plant. By mid-2010, the prime minister issued another decree outlining the overall trajectory of Vietnam’s nuclear development. Starting with the first 1,000 MW reactor by 2020, nuclear energy is expected to increase by 2025 to approximately 8,000 MW, equivalent to 7 percent of Vietnam’s total energy production. This is planned to rise to 15,000 MW by 2030, equivalent to 10 percent of the country’s electricity production. A total of seven nuclear power plants with 14 reactors are proposed.

Interestingly, Vietnam signed related agreements with Russia, the US, Japan and France in 2010. With Russia, the agreement pertained to the building of an Atomic Research Institute, training of engineers and technicans and research collaboration as well as constructing the first nuclear power plant. The agreement with the US is about safety and security of the infrastructure, access to fuel supply and waste management. With Japan, the agreement is about the power plant and technology, while that with the French company Areva is to establish two research laboratories.

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erected.\(^8\) But for political and technical reasons, the Bataan Nuclear Plant (BNPP) never made it into operation. In May 1995, then President Fidel Ramos created the Nuclear Power Steering Committee (NPSC), which was to “provide policies, directions, evaluation, and other functions necessary and appropriate to attain the objectives of the overall nuclear power program, and to prepare action plans, work programs and proposed timetables.”\(^9\) Ten potential sites for a nuclear power plant were apparently identified, although no concrete steps were pursued during the Ramos presidency.\(^10\)

Nuclear energy was again in focus during the administration of Gloria Arroyo as part of the country’s long-term energy options. Arroyo’s energy secretary acknowledged that the nuclear alternative was in line with the government’s policy of keeping its options open in light of growing energy costs.\(^11\) Bills were filed in the House and Senate in 2008 to provide for opening the Bataan Nuclear Power Plant. That move sparked angry protests from civil society groups opposed to the Bataan plant-in-a-fragile-world.\(^12\) Thus, the widespread “distribution of and international commerce in HEU,” even for peaceful purposes, “poses serious risks ...” \(^1\) 3

TIME TO PAY ATTENTION

With all of these plans in various stages of implementation, it would appear certain that nuclear facilities—including fissile materials—will soon be in the region. Securing them, which is the very essence of nuclear security, is therefore an imperative. As the IAEA notes, nuclear security refers to the physical protection of nuclear facilities, including the plant and the reactor. This includes having an appropriate design and rigidity of construction to avoid operational failure and prevent leakage or physical attacks on the facility.

Southeast Asian states need to be concerned about nuclear security, as “terrorist groups may attempt to acquire nuclear weapon materials through illicit transactions... theft, or transfer from [certain] states.” \(^13\) Although nuclear terrorism was previously considered a remote threat, it has been acknowledged as a possibility in recent years, with terrorist groups possibly having access to fissile materials they could use to develop crude but lethal nuclear weapons. The US National Research Council warned as early as 2002 that crude nuclear weapons using highly enriched uranium (HEU) “could be fabricated without state assistance” and that “as little as 25kg [of HEU is] needed to produce a nuclear weapon.” \(^14\) Thus, the widespread “distribution of and international commerce in HEU,” even for peaceful purposes, “poses serious risks ...” \(^15\)

In this regard, it is clear that the only impediment that is preventing states or technically competent terrorist groups from having their own nuclear weapons is the unavailability of fissile materials, particularly HEU, yet enriched ura-

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\(^{8}\) See Multisectoral Task Force on Power Scheduling, p.3, and University of the Philippines-Institute for Science and Mathematics Education Development (UP-ISMED), Nuclear Power: Prov and Cons (Quezon City: ISMED, 1984), p.16. 9 ibid.


\(^{12}\) Akiyama, “Growing Demand of Nuclear Energy for Economic Growth and Proliferation Risks,” p.5.
A.Q. Khan’s clandestine network, whose operations in Asian states, whether willfully or unknowingly, could be involved in the illicit transfer of nuclear weapons as well as provision of a “sophisticated network and/or al-Qaeda.”

Indeed, trends indicate that “transnational criminal organizations … are becoming increasingly sophisticated in exploiting the global networks of information, finance and transportation.”

It has been noted in the past that Southeast Asian states, whether willfully or unknowingly, could be involved in the illicit transfer of nuclear material. Take the case of Malaysia. Companies located in Malaysia were allegedly involved in A.Q. Khan’s clandestine network, whose operations included the sale of designs for making nuclear materials and manufactured parts of nuclear weapons as well as provision of a “sophisticated transportation system to move the goods from the supplier to the buyer.”

A Dubai-based company, SMB computers, served as the middleman in transporting materials to Libya, Iran and North Korea, with companies in Malaysia producing these items. Upon receipt of materials from Malaysia, they were transferred to a German ship that took them on to Libya via Italy, according to published reports. Malaysia denied allegations that it had factories involved in producing WMD-related materials and supplying them on the international black market.

GIVE SECURITY EQUAL TIME

While nuclear safeguards, safety and security ought to be given equal importance, preventing the spread of nuclear weapons and keeping the public safe from nuclear accidents are the most prominent concerns heard expressed in the region.

The applicable framework in ASEAN is the Southeast Asian Nuclear Weapons-Free Zone Treaty (SEANWFZ), which came into force in 1997 and carries the following language:

States Parties are obliged not to develop, manufacture or otherwise acquire, possess or have control over nuclear weapons; station nuclear weapons; or test or use nuclear weapons anywhere inside or outside the treaty zone; not to seek or receive any assistance in this; not to take any action to assist or encourage the manufacture or acquisition of any nuclear explosive device by any state; not to provide source or special fissionable materials or equipment to any nuclear weapon state (NNWS), or any NWS unless subject to safeguards agreements with the International Atomic Energy Agency (IAEA); to prevent in the territory of States Parties the stationing of any nuclear explosive device; to prevent the testing of any nuclear explosive device; to prevent the dumping of radioactive wastes and other radioactive matter at sea anywhere within the zone, and to prevent the dumping of radioactive wastes and other radioactive matter by anyone in the territorial sea of the States Parties.

In other words, the treaty merely envisions transforming Southeast Asia into a region free of nuclear weapons by committing members of ASEAN to refrain from developing nuclear weapons with the agreement and co-operation of the five Nuclear Weapons States — the US, Russia, China, France and the United Kingdom. The latest joint communiqué issued after the annual ASEAN ministerial meeting in July 2011 validates this emphasis, as the foreign ministers said they “look forward to direct informal consultations between ASEAN and the Nuclear Weapon States with a view of finalizing their accession to the SEANWFZ Protocol.”

When the treaty was drafted in the mid-1990s, the premise was that only states are in a position to proliferate nuclear weapons. The possibility of non-state actors acquiring these weapons was not yet part of the equation. And while the accession of the nuclear weapons states to the treaty remains important, it is equally important given the realities of the contemporary strategic environment to take firm action on nuclear security.

A 2007 ASEAN ministerial meeting noted that “the emergence of possible non-state actors that might be eager to resort to the threat or use of nuclear weapons highlights the seriousness of this concern.” But the 2007-2012 Action Plan subsequently drawn up deals more with nuclear safety, IAEA safeguards and developing a legal framework to meet international standards on nuclear safety. The welcome development, though, is that the SEANWFZ Commission has decided to review the existing action plan. That review could provide an opportunity for nuclear security to be considered, as long as the issue is on the broader ASEAN agenda.

The question that begs to be answered is whether the nuclear security issue can adequately be handled under the existing treaty or whether the bloc needs a new framework. Either way, the process will take time, given the so-called ASEAN Way, which requires consensus and where agreements emerge in an incremental manner.

The participation of six ASEAN members (Indonesia, Malaysia, Philippines, Singapore, Thailand and Vietnam) in the 2010 Nuclear Security Summit and their attendance at the Seoul Summit this year could help push ASEAN to pay more attention to nuclear security.

Given the relatively low priority accorded to nuclear security within the association, ASEAN’s external partners may need to drive the process of pushing nuclear security higher up ASEAN’s top-do list through various ASEAN-led regional bodies such as the East Asia Summit, the ASEAN Regional Forum and the ASEAN Defense Ministers Meeting Plus.

Hopefully, no ASEAN state will face a future situation where the urgency of dealing with nuclear security results from an incident involving nuclear facilities and/or materials. Otherwise, ASEAN may once again be seen as having acted too late.

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