

The Current Status of Detection Infrastructure Development in Indonesia

As an archipelagic country, Indonesia has more than 150 ship ports. Ten of the international ports are providing online services. However only six of them are equipped with radiation portal monitors (RPMs). The procurement of these RPMs were done both through international cooperation and independent purchasing. Indonesia has many land borders in three islands, namely Kalimantan (Borneo), Papua, and Timor. At this time, these land borders are not equipped with RPM. It also happened that none of the almost 30 international airports in the country are not equipped with RPM. In 2018, Indonesia cooperates with the IAEA as written in Integrated Nuclear Security Support Plan (INSSP), for the application of nuclear security measures at a major public event, the Asian Games XVIII in Jakarta and Palembang City. Furthermore, industrialization in Indonesia is also rising significantly in recent years. In other side, while Indonesia provide a gift basket in The Hague 2014 Nuclear Security Summit in the form of Nuclear Security Legislation Implementation Kit document, in fact, Indonesia is still in groundwork for the establishment of national nuclear security law.

All of the above matters can be considered as both opportunities and challenges, which underlined the importance of nuclear security and strengthening efforts of national commitment to it. While legislation is in preparation, technological issues should also be faced. For this, Indonesia is not only maintaining international cooperation but also is in its progress on developing RPM technology domestically. With this project, it is expected that the number of RPM could match the national needs and that the operation and maintenance could be sustained. This paper will describe the current industrial development in general, situation of the RPM operation and the technology development process and achievement.

The multi-year national project for RPM technology development engaged many national institution as a part of national nuclear security regime entity, such as research institutes, university, state own company and competent/regulatory authorities. The roles of related institutions have been defined and the scheme of cooperation have been established, completed with flexible government funding schedule. Architecture design of the RPM, comprised of detection equipment, CCTV, CAS, and power supply and I&C, have been implemented. Field testing have been carried out with instalment and operation of the RPM prototype in the main gate of National Nuclear Energy Agency (BATAN) facility in Serpong Town, Banten Province, near Jakarta. Some operational feedbacks have been collected. The next step is regarding standardization and certification for this product. Early preparation is in progress. This is including identification of all necessary standards and testing facilities and equipment, and gap analysis with the current situation. Completed program for 2020-2024 period is being formulated. Indeed, many constraints and challenges have to be managed. In overall, with this national project Indonesia is learning in research and development on RPM technology, while also demonstrate its commitment to sustaining nuclear security regime.

State

Indonesia

Gender

Male

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