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## NUCLEAR REGULATORY PROGRAMME TO MINIMIZE AND DETER THE POTENTIAL THREAT RELATED TO ILLICIT TRAFFICKING

Radioactive Sources are being used all over the world, including Indonesia for many decades to benefit the humankind for various applications. For example to diagnose and treat illness, irradiate food, non-destructive testing, well-logging, etc. Some sources contain relatively large amounts of radioactive material that could potentially be used for malevolent purposes. It is important for Indonesia to prevent, detect and response to incidents involving the illicit trafficking of nuclear material and other radioactive sources.

The Act No.10 Year 1997 on Nuclear Energy stipulated that any activity related to the utilization of nuclear energy is required to be conducted in a manner which observers safety, security, peace, health of workers and the public, the protection of the environment. This requirement is further implemented by Government Regulation No. 33 Year 2007 on Safety of Ionizing Radiation and Security of Radioactive Sources. The aim of the regulation is to ensure the safety, security, peace, and health of the workers and people, and to protect the environment. The Government Regulation No. 33 Year 2007 is based on IAEA BSS 115 and Code of Conduct on The Safety and Security Radioactive Sources. The national strategies to minimize the likelihood of a loss control is based on the Government Regulations Article 60 to article 76. As part of the nuclear regulatory control, an export-import authorization system of radioactive sources are founded in article 61 to Article 65 of the Government Regulation No. 33 Year 2007. Article 61 states that prior to consigning radioactive sources category 1 and category 2, the importer shall ensure that domestic users have already held license from BAPETEN as well as the exporter. Beside, the exportation requires: exporter shall have license from BAPETEN and ensure that importer for radioactive sources category 1 and 2 also holds license from the regulatory authority.

Based on Act 10/1997 on Nuclear Energy, inspection shall be performed by BAPETEN and shall be conducted periodically or timely. Base on Government Regulation No. 29 Year 2008 on Licensing of Ionization Radiation Sources and Nuclear Material, BAPETEN shall perform inspection to verify compliance with regulation or licence's requirements, executed by radiation safety inspector (assigned by BAPETEN).

The challenges in the regulatory control are due to the geographic position of Indonesia (domestic and international issues), the utilization of radioactive material increase, the lack of infrastructure to monitor and control (fund, inspector, procedure, coordination, etc.), and the fact law enforcement mechanism for non-compliance have not established or implemented. In order to prevent and deter illicit trafficking, Indonesia has installed of radiation protection monitors (RPM) in some ports).

Pertaining to the regulatory control of radiation safety and security, BAPETEN has successfully established an information system on licensing and inspection for radiation facilities and radioactive sources. This model called B@LIS (BAPETEN Licensing and Inspection System) is the Nuclear Energy Regulatory Information System which is operated by BAPETEN. The main objective are to support the licensing process and the inspection activities the utilization of radiation facilities and nuclear installation. In order to control export and import of nuclear material and/or, Indonesia has implemented Indonesia National Single Window (INSW) to prevent illicit trafficking.

## REFERENCES

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