

## **Establishment, evolution and competency development of competent authorities and compliance assurance mechanisms for safe and secure transport of nuclear and radioactive materials in Myanmar**

The widespread applications of radioactive materials and radiation generating equipment in the field of industry, medicine, agriculture and research in Myanmar necessitated establishment of an efficient regulatory framework and consequently the Department of Atomic Energy (DAE) constituted to exercise regulatory control over the safe and secure transport of the nuclear and radioactive materials.

DAE promulgated Atomic Energy law on 8th July 1998 for safe use of radiation source in the country. It was mainly based on radiation safety and does not cover nuclear safety, nuclear security and safeguards (3S strategies). In order to strengthen its national nuclear related legislation, DAE has just recently completed the drafting of the Myanmar Nuclear Law as DAE acts as the regulatory body under the atomic energy law and is responsible for all aspects for control, security and safe management of radioactive materials used in Myanmar.[1]

In Myanmar, Users of radiation sources must submit storage design and emergency procedures when they apply for licence and also transporters needs permission from inspectors of DAE to get transport certificate.[2] All the radioactive sources are registered and sources having activity above the exemption levels are licensed both for safety and security point of view. DAE is using Regulatory Authority Information System (RAIS) since 1998 and now using RAIS 3.3.[3]

Inspectors from DAE are implementing safety and security culture in every practices and transport of radioactive sources which they inspect. Their safety and security points are for carriers, radiation workers, public and environment. They measured the radiation levels around the radioactive sources transport vehicles with instruments provided by International Atomic Energy Agency (IAEA) and United States Department of Energy (USDOE) to ensure the safety for the vehicle crew and public. Ministry of Health and Sport is producing and sharing some part of short half-life radioisotopes from its cyclotron to private hospitals by using modified transport vehicle with radiation shields around transport package.

Challenges in Myanmar is well developed and implemented safety and security culture is essential. To achieve that, DAE in collaboration with stakeholders, has been conducting workshops and trainings to exchange information, knowledge of radiation safety, experience and good practices on the system of radiation protection at the national level and regional levels with the help of IAEA and other international organization.

IAEA is providing assistance to Myanmar by giving appropriate trainings for inspection of specific practices and also support new instruments for inspections such as neutron detectors to inspect linear accelerators and other neutron producing facilities. The DAE is also trying to strengthen its human resources by recruiting new staffs to enhance the ability of performing the necessary activities in safety and security of radioactive sources and nuclear materials more effectively. DAE is also planning to conduct radiation protection officer (RPO) training.

This paper will present an overview of the Legislative and Regulatory Framework for Safe and Secure Transport to fulfill the demands of radiation and nuclear safety in various sectors in Myanmar. With the support of IAEA and other developed member states, Myanmar is looking ahead to working with emerging technologies and innovative graded approaches.

### **Country or International Organization**

### **Instructions**

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