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The Interface of Safety and Security in Transport of Radioactive Material

Once a country makes a knowledgeable to build a nuclear power plant, it must begin considering how to operate that facility safely and securely.It is important to continue working on the harmonization and integration of the safety and security areas in transport in order to develop a strong Safety and security culture, taking into account the different historical evolution that both areas have experienced. It is intended to work on safety and security in an efficiently and effectively way, without duplication or conflict.

This paper assesses the prevailing safety and security culture and the degree to which it is successful in keeping people safe from radioactive materials. The paper also offers some guidance to small users that handle radioactive materials, regarding how they may enhance their own nuclear safety and security cultures.Joint inspections covering both safety and security issues have been performed. Sharing information, database, historical records, risks and threats are carried out in order to unify fulfilment for safety and security requirements.

The paper aims to describe the regulatory implementation of safety and security issues in the transport of radioactive material by the Nuclear and Radiological Regulatory Authority of Egypt –ENRRA- (Competent Authority for regulating transport of radioactive material in Egypt). It provides requirements in implementing and enhancing a nuclear security regime to protect radioactive material during transport. An effective legal framework is essential to ensure and facilitate safe and secure transport of Radioactive Material. Domestic legislation and international recommendations have an active role strengthening long-term control over the transport of Radioactive Material, and are periodically reviewed to ensure they remain effective. With the objective of controlling and monitoring the compliance with the applicable requirement of security standards, Regulatory Body must perform inspections and regulatory audits to consignors, carries and other related users.

The regulatory body in Egypt is in process of implementing a Data Base to store all information relevant to transport of radioactive material and the corresponding security measures: consignor, consignee, security, responsible, origin and destination of shipments, carrier, routes, type and amount of radionuclides (physical form, activity, etc.), models and approval certificates of packages, transport index, starting and ending date and time, quantity of vehicles and satellite tracking. The Data Base is used for recording the data related to Notice of Radioactive Transport forms submitted by users allowing, in this way, to have the orientative information about the quantity of land, air and water transports of these materials in Egypt.As Emerging technologies have a clear and significant role in enhancing the current security approaches, the paper is aimed to identify and apply modern technologies in promoting the security.

Security of radioactive material in transport continues to be a challenge for States that are working on strengthening their nuclear security regime. One reason for this is that State regulatory agencies and other organizations lack the resources and trained personnel to dedicate to this field.One way to assist States to advance nuclear security is to reach out to safety workers(regulators, inspectors, and safety compliance personnel) and showcase the need to better integrate safety and security practices.

Physical protection measures have become a matter of international interest and cooperation as well as a security plan during transport of radioactive material. Regulatory body of Egypt has the responsibility of requiring the Operator a complete Physical Protection system for radioactive facilities in accordance with the regulatory requirements set forth by it, as well as a Security Plan during transport of radioactive material. Regulatory Body carries out various activities related to the evaluation, monitoring and control of the design of the Physical Protection Systems and the Security Plans. The objectives of the requirements of physical protection of such materials during transport is assisted by minimizing both the total time the material remains in transport and the number and duration of transfers of the material, avoiding the use of regular movement schedules and limiting the advance knowledge of transport information including date of departure, route and destination to designated officials having a need to know that information.

State

Egypt

Gender

Male

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