

Interfaces between Safety and Security during the Transport of Radioactive material including NORM in Madagascar

Radioactive material is transported every year for peaceful applications in medicine, industrial exploration and development, as well as in basic scientific research and education in Madagascar.

Transport safety and security of radioactive material within the country is regulated.

Madagascar has adopted the IAEA Regulations for the Safe Transport of Radioactive Material (SSR-6) to regulate transport of radioactive material from safety perspective. Radioactive material from security point of view has been defined under the Convention on the Physical Protection of Nuclear Material (CPPNM) and its Amendment. The Code of Conduct and the Guidance on the Import and Export of Radioactive Sources has been implemented in this regard.

Moreover, Madagascar has an abundance of resources suitable for mining and as a result has large mining and transportation industry sectors devoted to the extraction and transport of nickel, cobalt, ilmenite, monazite, zirconium and chromium ore. All of these materials contain varying concentrations of radionuclides of natural origin. Depending on the concentration of the radionuclides of natural origin, the ores and byproducts may be considered naturally occurring radioactive material (NORM) for which safety controls must be established and enforced for the handling of the materials. The Radiological Safety and Nuclear Security Directorate (DSRSN) of the "Institut National des Sciences et Techniques Nucléaires" (INSTN) has responsibility for the radiological safety of these products and operations. Additionally, the DSRSN has responsibility for nuclear security within Madagascar.

Certainly, safety and security measures are different during the transport of radioactive material. Madagascar establishes an approach to manage the interface between safety and security during transport, so that relevant measures are implemented in a harmonized way that does not compromise safety and security.

This paper aims to describe the main aspects in the regulatory implementation of Safety and Security issues related to the transport of radioactive material by the DSRSN, which is the Competent Authority for regulating transport of radioactive material in Madagascar. Experiences and lessons in the detection and control of cargoes containing radionuclides of natural origin will be discussed from both security and safety perspectives, especially in the context of NORM.

Country or International Organization

Instructions

Author: ZAFIMANJATO, Joseph Lucien (Institut National des Sciences et Techniques Nucléaires (INSTN-Madagascar))

Co-authors: Mr ZAFIMANJATO, Njakatovo (Institut National des Sciences et Techniques Nucléaires (INSTN--Madagascar)); Ms ZAFIMANJATO, Meva

Presenter: Ms ZAFIMANJATO, Meva

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