

# Physical Protection of Nuclear Materials During Transport

The Nuclear Regulatory Authority (ARN) was established as an autonomous body reporting to the Presidency of Argentina by Act 24804 (known as the Nuclear Activity National Act), which came into force in 1997, and is empowered to regulate and control the nuclear activity in Argentina. Its objective is to establish, develop and enforce a regulatory system applicable to all nuclear activities carried out in the country.

In its capacity as the national authority on all issues concerning radiation and nuclear safety, non-proliferation assurances, physical protection and transport of radioactive materials, the ARN grants licenses, authorizations and permits, as appropriate, in connection with facilities, practices and personnel associated with radioactive materials. Additionally, the ARN performs control activities to ensure that persons responsible for each practice comply with the provisions set forth in the standards and other regulatory documents.

Regarding the physical protection against robbery, removal or unauthorized use of nuclear materials, and sabotage against nuclear facilities, the ARN requires the Responsible Entity to implement a complete physical protection system applicable to nuclear facilities and materials in accordance with the regulatory requirements set forth by the ARN.

The establishment of regulatory criteria concerning the security of radioactive materials other than nuclear materials is also addressed by ARN, through the development of a policy which is reinforced by the reasonable assessment of the risks in this area that are relevant to the Argentine context.

The transport of nuclear and other radioactive materials is considered one of the most risky stages of materials' life since they are more vulnerable being out of the fences of a facility. In this sense, there are two different groups of measures and procedures to protect them during transport.

Regarding the safety during transport of radioactive material, all international, regional and national organizations responsible for regulation of land, air, river and sea transport of hazardous materials have endorsed the safety requirements contained in the provisions of the IAEA SSR-6 "Regulations for the Safe Transport of Radioactive Material", 2012 Edition (currently, the 2018 Edition is available). The transport of nuclear and other radioactive material within Argentina shall be carried out in accordance with standard AR 10.16.1 relating to "Transport of Radioactive Materials", the text of which is identical to the aforesaid IAEA Regulations.

On the other hand, the security aspects during transport of nuclear materials are considered in standard AR 10.13.1 "Standard of Physical Protection of Nuclear Materials and Facilities". This regulation states that levels, procedures and recommendations for the physical protection of materials protected during international transport shall be in accordance with Annexes I and II of the Convention on the Physical Protection of Nuclear Material (CPPNM).

In this paper we will approach the differences between physical protection of nuclear material and nuclear security of other radioactive materials during transport, from the regulatory point of view, and the challenges that this distinction poses to international regulations.

## State

Argentina

## Gender

Female

**Primary authors:** ROSTON, Maria Victoria (Nuclear Regulatory Authority of Argentina); Mr ELECHOSA, Christian (Nuclear Regulatory Authority)

**Presenter:** ROSTON, Maria Victoria (Nuclear Regulatory Authority of Argentina)

**Track Classification:** PP: Transport of nuclear and other radioactive material: practices, challenges and regulatory issues