

# International Transport of Nuclear Material in Brazil – a model of success

The purpose of this work is to demonstrate how International Transport of Nuclear Material in Brazil is organized, coordinated and executed according to the National Nuclear Security Regime. The country has established a Nuclear Security governance in the President of the Republic Institutional Security Cabinet which has a central role in the System for the Protection of the Brazilian Nuclear Program (Sipron), with the recent implementation of the Nuclear Security Coordination in its structure. This new organization enabled the coordination of all national assets involved in the security of nuclear material during transport. Brazil has extensive dimensions, it occupies roughly half of South America, bordering the Atlantic Ocean and all the subcontinent countries except Ecuador and Chile. This continental country presents huge challenges to the ground transportation of any kind in order to reach neighboring countries. Nevertheless, in 2018, a successful nuclear material transport operation to Argentina was coordinated by Sipron within a length of more than 2.000 Km. Nuclear material was delivered from Resende in the State of Rio de Janeiro to Uruguaiana in the State of Rio Grande do Sul in the border with Argentina. This represents an itinerary farther than the distance between Vienna and Moscow. The Coordination of Nuclear Security carried out various activities before and during the operation. First of all these activities were concerned to the identification of all stakeholders roles and responsibilities with the purpose to achieve the necessary synergy in order to perform the operation jointly. The Design and Evaluation Process Outline (DEPO) methodology was applied and the following tasks were accomplished: transportation conveyance characterization; risk and threat assessment with the support of the national intelligence agency; physical protection design according to a defined threat; law enforcement coordination (Federal Police and State Polices); contingency planning; information security measures; personnel clearances; coordination with highway operators; regulatory compliance; activation of the National Command and Control Joint Center and the State Command and Control Joint Centers; synchronization matrix implementation. The operation proved the importance of liaison in all levels, information sharing and cooperation among the responders. However the principle of confidentiality application became crucial to restrict access to sensitive information to the minimum necessary. Deterrence was largely employed during the operation to minimize risks. The operation has turned into a successful interagency Case Study with many Best Practices and Lessons Learned.

Key Words: Nuclear security regime; nuclear material transport, joint interagency operation.

## State

Brazil

## Gender

Male

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