

Innovative technologies that impact the Safe and Secure Transport of Nuclear and Radioactive Material

The safe and secure transport of nuclear and radioactive materials is a critical aspect of national security, public health, and environmental protection. Emerging technologies—such as the Internet of Things (IoT) and automation—are increasingly shaping the way these materials are handled during transport. These innovations enable real-time monitoring, enhance traceability, reduce human error, and increase protection against both physical and cyber threats. This paper explores the applications of these technologies in minimizing risks associated with the transport of radioactive materials. It also discusses the operational, ethical, and regulatory challenges they present while offering practical recommendations for policymakers, engineers, and industry stakeholders aiming to build secure, efficient, and future-ready transportation systems.

Country or International Organization

Instructions

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