



Security of
radioactive disused
sources in transport

GSS EXPERIENCES



GSS

Security of radioactive disused sources in transport

Physical security requirements for the transport of radioactive disused sources are dictated by:

- Each Country's regulatory framework
- The type of transport
- The existing infrastructure
- The distances and areas to be traveled through

Types of Transport

TYPE B PACKAGING

Type B packages are designed to withstand severe accident conditions without releasing its contents. Type B packages are used to transport materials with high levels of radioactivity and are typically associated with a more robust security plan. The size of the Type B packages can range from small containers to those weighing over 100 tons.



Types of Transport

SPECIAL ARRANGEMENT

For certain equipment that have Cat 1 disused sources, finding an adequate Type B package can be challenging. In these cases the radioactive disused source transport takes place using a “special arrangements” container. These containers are authorized by the Country Regulator and are usually subject to specific physical security measures during transport.



Challenges
during planning
phase

Armed forces & Police support: Private vs. Government transport

During private transports getting the support from the armed forces or local police can be challenging and sometimes a private security force has to be hired. During operations that are coordinated by the IAEA or the local government, this support is generally provided.

Lessons learned

This support has to be fully briefed on the transport security plan.



Vehicle

Finding a vehicle that complies with all technical, radiological and physical security conditions is often a challenge in the region.

Lessons learned

Local regulation in some Countries allow a vehicle registered for HAZMAT transport, to be temporarily licenced for radioactive disused sources transport



Available technologies

Real time GPS tracking kit is not always available for these types of packages. GPS trackers used by GSS allow our personnel to remotely track route, speed, altitude, kinetic force, temperature, light exposure and 3 different tamper variables that may affect the package during transport.

Lessons learned

Implement a tested technology



Real life
challenges
during
transport

Overnight Stops

During longhaul transports, overnight stops are a critical part of the trip.

Lessons learned

- a. Select a populated urban site
- b. Inside or close to police station
- c. 24hr escort should remain with the transport.



Local / National Strikes

Strikes can happen at any time and may affect the transport operation once started.

Lessons learned

- a. A contingency plan within the security plan is critical.
- b. Once news of the strike breaks, the highest level of government forces and regulatory authority have to be notified and involved



Package handover at airport

The handover of the package to the airline is a critical process many times hindered by cumbersome procedures and restricted access for transport personnel

Lessons learned

- a. Verify physical security measures at storage facility at airport
- b. Process special access permits to accompany package to airplane.



Armed rebel groups

Not only the transport of the radioactive disused sources can be affected by situations arising from the presence of this groups. Dismanteling and packaging teams on the way to site have to be included in the security plan arrangements

Lessond learned

- a. Expedite decision making when threat level rises
- b. Alternative / Backup transportation arrangements have to be contemplated when transporting disused sources from high risk areas.





Thank you

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