

# Transportation Security

## Preventing Theft of Radiological Materials in Transport

The Department of Energy/National Nuclear Security Administration's (DOE/NNSA) Office of Radiological Security (ORS) works with partner countries to enhance the security of high-activity radioactive sources during transport. The ORS transportation security initiative provides security upgrades, training, and expertise to help prevent the theft of high-risk radioactive materials during transport.

### Transportation Security Risk

Millions of shipments of radioactive material are made throughout the world every year. While most of these shipments do not present significant security risks, there are many shipments that contain large quantities of highly radioactive materials, such as cobalt-60 and cesium-137. Radioactive sources could be stolen by adversaries for use in a radiological dispersal device (RDD), or "dirty bomb."

Radioactive materials in transport pose unique security challenges since adversaries can choose the location, timing, and method of attack that provides the highest likelihood of success.

### Transportation Security Enhancements

ORS transportation security experts work with partner-country governments and industries to conduct assessments of transportation security vulnerabilities and develop recommended security upgrades. Security enhancements may include:

- Secure cargo vehicles typically provided to public owned and operated entities. Cargo vans are procured and equipped with security measures that provide detection, delay, and communications for interfacing with a dispatch center.



- Security upgrades including two-way radio, satellite phone, driver duress alarms, remote vehicle disablement, vehicle tracking and geo-fencing, cameras, and intrusion detection.
- ORS-developed T-STAR system that provides near real-time shipment tracking and detection of cargo tampering.
- Escort vehicles with security and communications.
- Protective gear for response forces.
- Armored delay boxes used to hold radioactive materials during transport.
- Transportation control center to track and control shipment from a central location.

### Training and Exercises

ORS offers several transportation security training courses including a security awareness course as well as courses for the national agencies and operators. The training courses enable partner agencies to define roles and responsibilities, and develop regulations, policies and procedures for transportation security. A command-level tabletop exercise is used to exercising transportation response plans and capabilities.



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