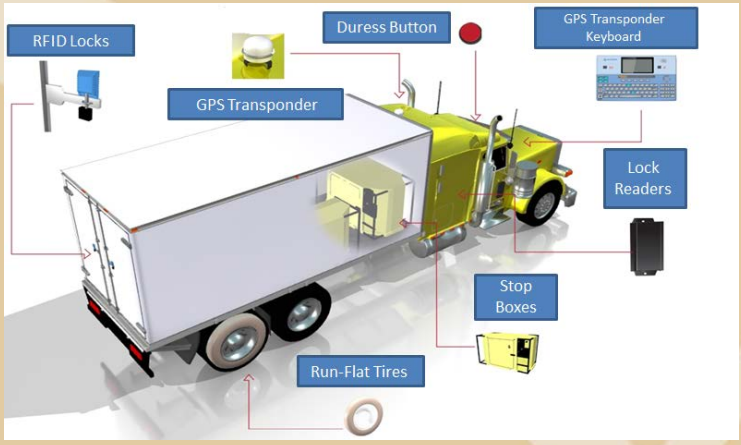
Secure Radioactive Material Packaging and Transportation — LANL Capabilities and Training Applications

Description/Capabilities

- Provides instruction and best practices on secure transport of radioactive materials meeting or exceeding that of USDOT 49CFR, USNRC 10CFR Part 61, and IAEA SSR-6.
- Provides tailored modules for managers, as well as for scientists, technicians, and engineers, who work with packaging and transporting radioactive materials around the globe.
- Provides structured analysis approach. Participants will be able to:
  - Understand various transportation security measures
    - GPS Tracking
    - Tamper Indicating Devices (Passive/Active)
    - Vehicle Security Features
    - Carrier/Driver Security
  - Identify appropriate and compliant packages (Type A and Type B)
  - Identify proper package labeling (may vary locally)
  - Understand the basics of a transportation security plan
  - Understand the process of alerts and notifications upon incident while in transport.
- Provides instruction in the form of classroom lectures, discussions, group exercises, case studies, and demonstrations.



Increased Physical Security for Transport

Passive vs Active
Tamper Indicating Devices

Basic Elements of a Transportation Security Plan

- *Material to be Shipped*
- *Consigner/Consignee Information*
- *Route Plans*
- *Communication Routes*
- *Driver/Carrier Information*
- *Procedural Notifications*
- *Emergency Notifications*
- *Transportation Security Equipment Procedures*

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Stolen/Lost Material Case Studies

Texas, September 2012 – Cat3 Am241 well-logging source lost

Mexico, December 2013 – Cat1 Co60 irradiator stolen in transit.

Oklahoma, July 2015 – Cat 2 Ir192 radiography truck stolen.

UN2915
RADIOACTIVE MATERIAL, TYPE A PACKAGE

UN3332
RADIOACTIVE MATERIAL, TYPE A PACKAGE, SPECIAL FORM

UN3333
RADIOACTIVE MATERIAL, TYPE A PACKAGE, SPECIAL FORM, FISSILE

Cargo Labeling

Appropriate/Compliant labeling dependent on activity, Type/Form of material, and container dose rate.

US and International Laws and Standards

Course includes in-depth discussion on US and international laws and standards for safety and secure transport of radioactive materials.

Increased Transport Security Measures

- *Physical Security Measures*
- *Transportation Security Plan*
- *Driver/Consignee Background Checks*
- *Local Government/Law Enforcement Notifications*

Shipping Containers

Several categories of shipping containers may be used with different requirements depending on isotope and activity.

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