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TRANSPORTATION SECURITY.

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# BEST PRACTICES AND LESSONS LEARNED IN LANL APPROACHES TO TRANSPORTATION SECURITY



**November 16, 2017**

Katherine Drypolcher

# Introduction

- **Programmatic mission**
  - unwanted radioactive and nuclear sealed sources of US origin
- **During transportation of nuclear material the risk of sabotage or theft is heightened.**

# Physical Protection of Material in Transit

- Prevent theft and/or diversion for malevolent use
- Prompt detection, assessment, and reporting
- Prompt Local Law Enforcement Authority (LLEA) response



# Graded Approach for Implementation Controls

Risk Category	Security Plan	State / City Notifications	Engineered Delays	GPS Tracking	Intrusion Alarm	Additional Requirements
High	Y	Y	Y	Y	Y	Y
Medium	O	N	Y	Y	N	N
Low	N	N	O	N	N	N

Y = yes, O = optional, N = no

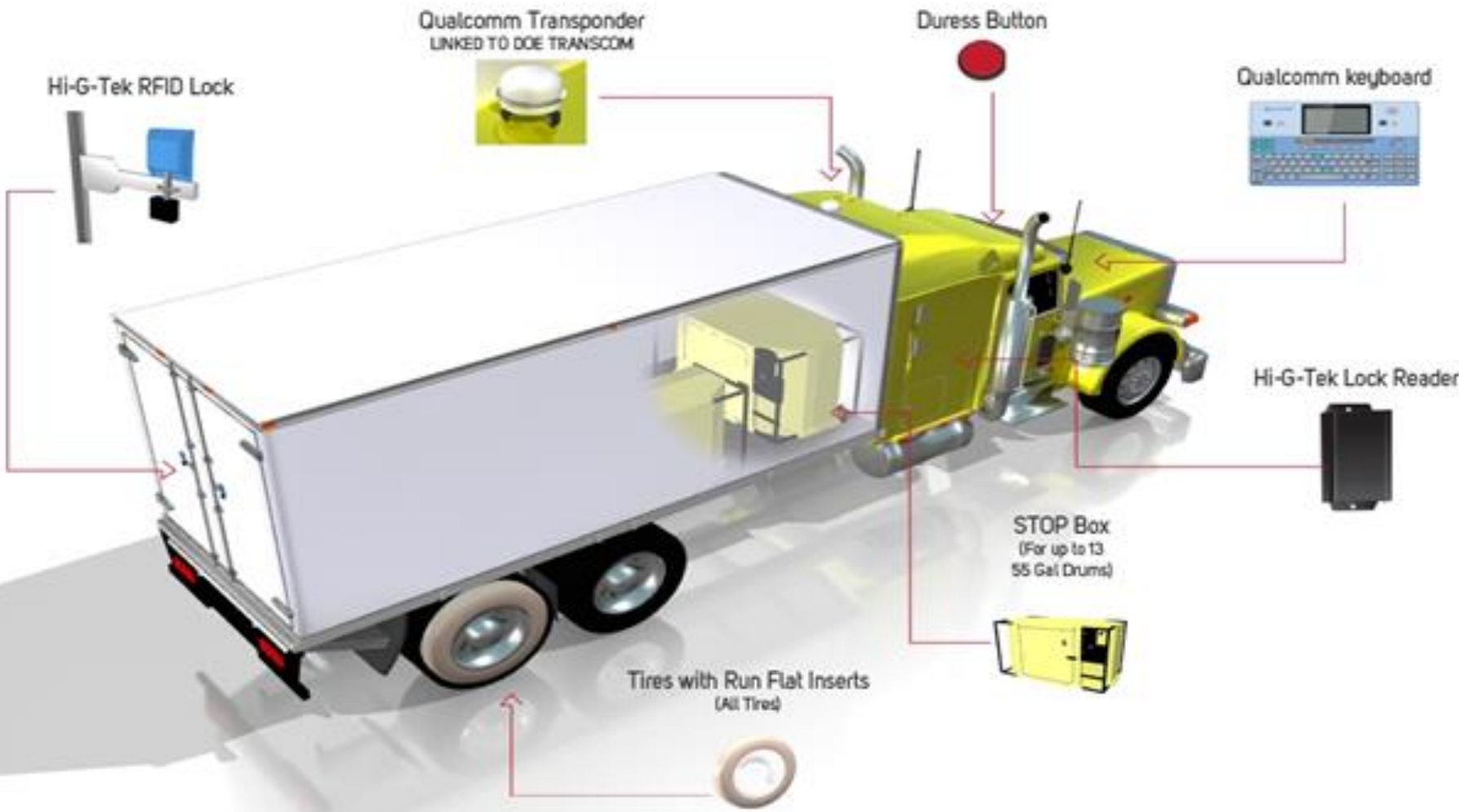
# Security Requirements

- **Engineered**
  - Hardened locks and doors
  - Stop Boxes
  - Real Time GPS tracking with or without intrusion notification
- **Administrative**
  - Notifications to appropriate authorities
  - Background vetted drivers
  - Transportation security plans
  - Procedure changes





# Security Technology Installed



# LANL Lessons Learned

# #1 Shipping Violation

- Air shipment of fissile material
- LANL-wide pause of all Class 7 shipping operations.
  - Corrective Action Plan
  - New Procedure
    - Use Every Time Checklists

# #2 Unmonitored Shipment

- 94 sealed sources at a US commercial licensee
- The shipment quantities did not trigger any supplemental physical security or tracking requirements.



# #3 Foreign shipment

- May 24<sup>th</sup> 2005 one  $^{293}\text{Pu}/\text{Be}$  was packaged in Uruguay for transportation to the US.
  - No support
  - Conflicting priorities
  - High costs

# Conclusion

- DOE – owned truck
  - Real-time tracking
  - Stop box
  - Reliable drivers
  - Minimized transport time
- Improvements from Lessons Learned