

BEST PRACTICES AND LESSONS LEARNED IN LANL APPROACHES TO TRANSPORTATION SECURITY



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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

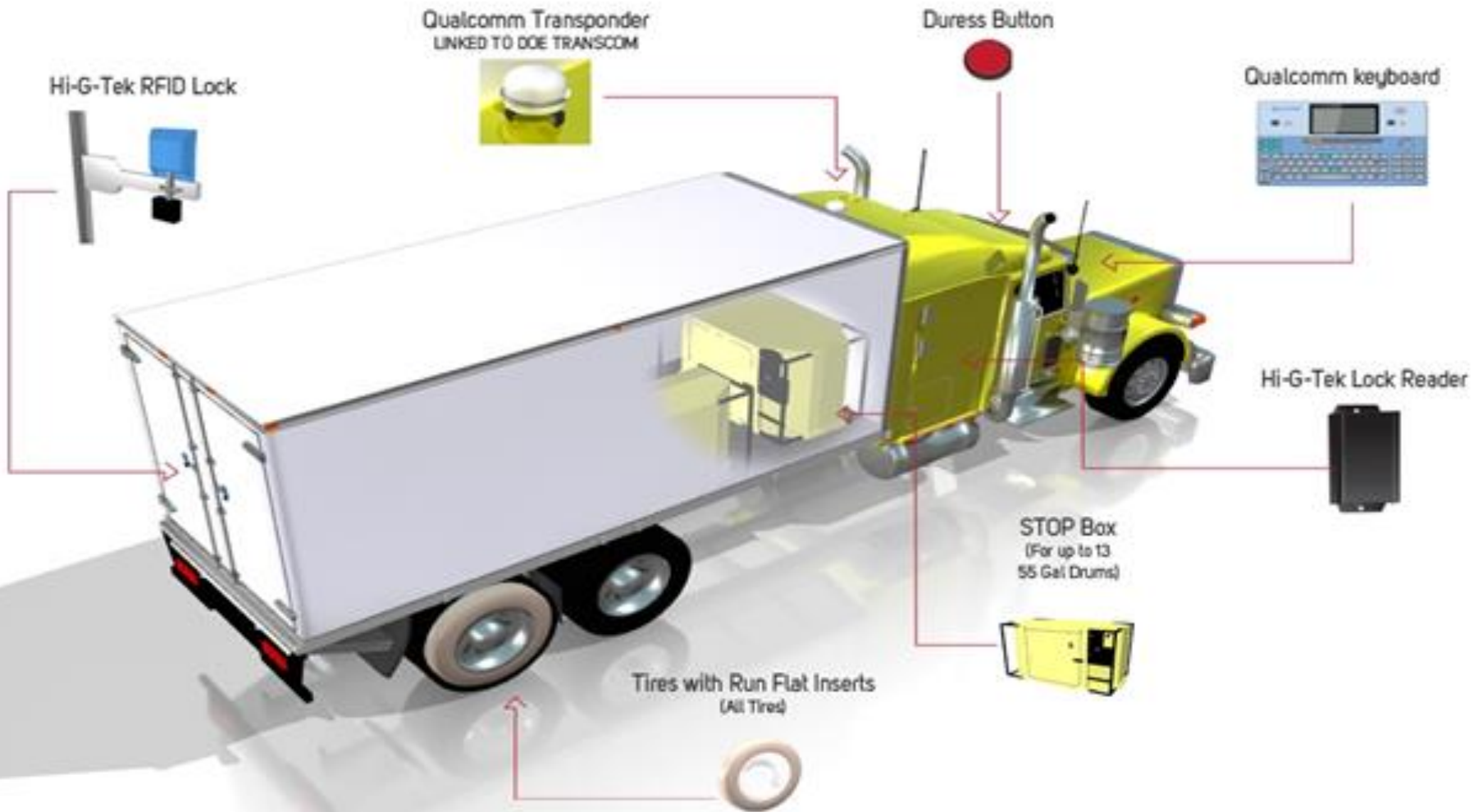
Security Requirements

- **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 24th 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