Dangerous Goods Advisory Council

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October 19, 2010
NTSB Basics

• Independent agency, investigate transportation accidents

• Determine probable cause(s) and make recommendations to prevent recurrences

• Single focus is safety

• Primary product: Safety recommendations
Topics of Discussion

• November 2009:
  – Proposed recommended safe practices for loading and unloading operations
  – Lithium battery incident reporting & analysis
  – Loading/unloading line (wetline) accidents
  – Mobile acetylene trailers

• New Topic:
  – Highway cargo tank vehicles
Proposed Recommended Safety Practices for Loading and Unloading Operations
Loading and Unloading Incidents

• Past 10 years (2001 - 2010):
  – Accounted for 75% of all transportation incidents
  – Accounted for 42% of all injuries
  – Number of incidents has remained constant

• Last year (July 15, 2009):
  – Unloading accident occurred in Swansea, SC
  – 1 fatality; 7 injuries
Accidents and Incidents
Safety Issues Addressed


- PHMSA has yet to publish final rule on this safety issue
Transportation of Lithium Batteries
Lithium Battery Incidents

- Lithium battery incidents reported to FAA
  - 1996 - 2005: 12 incidents (1.2 incidents/year)
  - 2006 - 2010: 34 incidents (7.2 incidents/year)
- April 20, 2010 – spare battery went into thermal runaway as a result of nearby curling iron turning on in bag post-flight; lithium-ion batteries
- May 6, 2010 – flames/smoke erupted from checked bag while being placed on cart; CR123A lithium batteries
- August 28, 2010 – flames/smoke erupted from crewmember’s backpack prior to takeoff; CR123A lithium batteries
Philadelphia, PA – February 2006
Safety Recommendations Addressed

• January 14, 2009 – PHMSA requires that all lithium batteries incidents be reported; does not specify that failed items be retained for evaluation purposes

• January 11, 2010: PHMSA publishes NPRM that addresses some NTSB recommendations

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Highway Cargo Tank
Vehicle Safety
Indianapolis Accident
- Electronic stability control systems
- Driver training
- Roadway factors contributing to instability
- Strategic vehicle design changes for improving the dynamic stability & rollover threshold
- Crashworthiness standards for cargo tanks