National Transportation Safety Board

# Enhancing Rail Safety: NTSB Investigations and Recommendations

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Board Member

Transportation and Infrastructure Services Committee
Energy, Environment and Natural Resources Committee
National League of Cities
March 9, 2014

# Federal Agencies: Transportation

NTSB

FMCSA

FRA

NHTSA

PHMSA

DOT

MARAD

FTA

FHWA

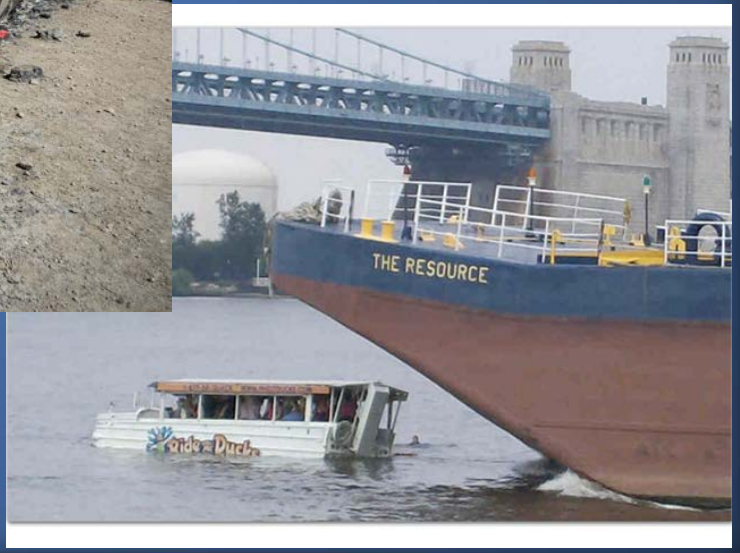
FAA

NTSB

**1) determining the probable cause of transportation accidents**

**2) making recommendations to prevent their recurrence**

# All Modes




NTSB

# PG&E/San Bruno Gas Pipeline Explosion

- 8 fatalities
- 10 serious injuries
- 48 minor injuries

- 108 homes affected
  - 38 destroyed
  - 17 sev - mod damage
  - 53 minor damage

NTSB

# Independent Federal Agency: Created in 1967

- ~ 132,000 accident investigations
- 13,500+ safety recommendations
- ~ 2,500 organizations/recipients
- 82% acceptance rate

Derailment of CN Freight Train U70691-18 With Subsequent Hazardous Materials Release and Fire
Cherry Valley, Illinois
June 19, 2009

**Accident Report**

NTSB/RAR-12/01
PB2012-916301

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NTSB

# Cherry Valley, IL

- June 19, 2009
- Ethanol tank cars derailed
- Fire: 1 fatality, 9 injuries
- 500 evacuated
- Infrastructure washout
- 15 new recs, including NLC

Collision of Two CN Freight Trains
Anding, Mississippi
July 10, 2005

ACCIDENT REPORT
NTSB/RAR-07/01
PB2007-916301

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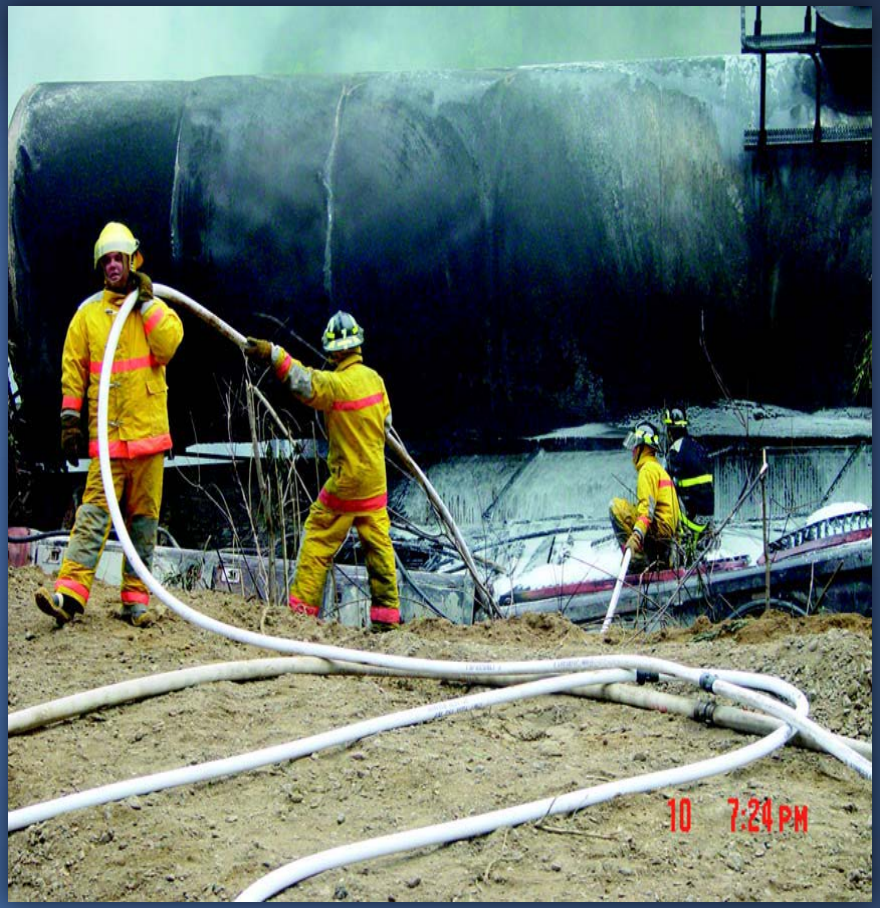
# Anding, MS

- July 10, 2005
- 2 freight trains collided
- 4 fatalities, all crews
- 15,000 gallons diesel fuel spilled
- Fire burned 15 hours
- 100 residents evacuated
- $9.5 million in damages
  $616,800 clean up
- Emergency responders had
  no information on hazmats
- Rec: require all & timely hazmat info



# Lac-Mégantic, Quebec

- July 6, 2013
- 63 crude oil tank cars derailed
- 1.6 million-gallon spill ignited
- 47 fatalities, 2,000 evacuated
- 3 joint recs w/TSB

**National Transportation Safety Board**
Washington, DC 20594

**Safety Recommendation**

**Date:** January 23, 2014

# Lac-Mégantic, Quebec

To FRA and PHMSA:

- Require expanded hazmat route planning to avoid populated/sensitive areas.
- Develop audit programs to ensure trains with petroleum products have response capabilities for worst-case discharges.
- Audit rail carriers to ensure proper classification of hazmats and adequate safety/security plans.

NTSB

# RAIL SAFETY RECOMMENDATIONS

- > 2,200 since 1968
- 151 remain open

# Three Broad Categories

- Tank Car Safety
- Infrastructure
- Emergency Response/Hazmats

# Example Recommendations

- Tank Car Safety:
  - R-12-005 (PHMSA) Require all new and existing crude oil/ethanol tank cars have puncture resistance systems and protection exceeding existing DOT-111 requirements.
  - R-12-006 (PHMSA) … new and existing bottom outlet valves designed to remain closed during accidents
- Infrastructure:
  - R-02-005 (FRA) Require inspection to ensure rail used to replace defective segments of existing rail is free from internal defects.
  - R-04-001 (FRA) Require railroads to include procedures that prescribe on-the-ground visual inspections & nondestructive testing techniques for identifying cracks in rail joint bars.
- Emergency Response/Hazmats:
  - R-07-002 (FRA) Assist PHMSA with regs. to require railroads immediately provide emergency responders accurate info. on type and location of all hazmats on a train.
  - R-14-004 (PHMSA) Work with FRA to expand hazardous materials route planning and selection requirements for railroads.

# NTSB Recommendation to NLC

- R-12-001 (Infrastructure)

Inform your members of the circumstances of [the Cherry Valley] accident and emphasize the importance of periodically inspecting storm water management detention ponds (both private and public) to ensure that no deterioration has occurred that would result in the failure of a pond to function as designed.

- Status – “Open, Waiting Response”

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