NTSB Rail Safety Forum
Rail Operations & Risk Management Strategies

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April 22, 2014 – Washington, D.C.
Introduction

• Safety is a core value across the industry

• U.S. railroads have a long history of evaluating transportation risk and operating safely

• U.S. railroads have been transporting hazardous materials for almost 150 years
  – High-hazard products such as Chlorine and LPG for over 100 years
Rail industry safety performance

- Since 1980
  - 80% reduction in train accidents
  - 85% reduction in employee injuries
  - 82% reduction in at grade collisions

- Voluntary safety actions beyond what is required by regulation

- Ongoing work with our customers, our employees, the community and the rail industry to enhance safety
Rail industry risk evaluation

• Primary focus is safely moving every shipment to destination
  – Continued investment in our infrastructure
    • $525B since 1980
  – Advancements in safety technology

• AAR Committees regularly evaluate hazmat risks

• Individual carrier evaluations of hazmat risks
  – CSX business risk management structure
  – Active process evaluates compliance, strategic, and external risks
Risk management requires close coordination

- Shippers have the responsibility to properly classify the product, select the correct shipping container and follow rigorous loading and securement procedures

- Carriers invest in infrastructure, conduct comprehensive structure, track, and railcar inspections, develop new technology solutions, and focus on training and adherence to operating rules to ensure that shipments arrive safely

- Coordination with local emergency responders is a regular component of effective risk management
Multi-faceted approach to managing risk

• Prevention
  – Operating practices and adherence to rules
  – Well-trained employees
  – Comprehensive inspections
  – Advanced engineering and technology

• Mitigation
  – Specialized resources and equipment
  – Network of specialized preparedness contractors
  – State of the art training facilities

• Response
  – Coordinated response preparation is critical
AAR Circular No. OT-55

• Recommended Railroad Operating Practices for Transportation of Hazardous Materials (OT-55)
  – Originated 1991 - Inter-Industry Rail Safety Task Force
  – Early & effective collaboration on hazmat safety
    • Increase focus on non-accident release
    • Proper load securement of tank cars
    • Prevention of tank car overfilling
    • Separation distances between railroad track and storage facilities
    • Use of standard formats on shipping papers
AAR Circular No. OT-55

- Contains a number of longstanding rail safety practices
  - Key HazMat Trains and Routes
  - Yard Operating Practices
  - TransCAER participation
  - Criteria for shipper notifications
  - Time sensitive materials
  - Provisions for SNF, HLRW
  - Storage
AAR Circular No. OT-55-N

• OT-55-N added changes to crude oil unit trains
  – Flammable liquid unit trains such as crude oil and ethanol are now by definition hazmat Key Train
  – Changes made in Fall 2013

• Key Train restrictions include
  – Maximum speed of 50 mph
    • 40 mph maximum in HTUA as part of DOT agreement
  – Train must hold main track at meeting or passing point unless siding meets FRA Class 2 standards.
Key Train restrictions (continued)

- Only cars with roller bearings allowed
- If a railcar defect is reported by a wayside detector but visual inspection fails to confirm evidence of the defect
  - Train must proceed at 30 mph maximum speed to next detector
  - If the same car again sets off next detector or found to be defective, it must be set out from the train
Rail Corridor Risk Management System tool (RCRMS)

- Routing tool in place since 2009
- U.S. DOT requires annual route risk assessment of
  - TIH/PIH
  - SNF
  - Explosives 1.1, 1.2, 1.3
- Considers 27 risk factors
- Stakeholder perspective is solicited
- FRA conducts regular reviews of railroads’ results
- Crude oil unit trains added per U.S. DOT agreement
Conclusion

• The U.S. freight rail industry has made significant improvements in the safe transportation of hazardous materials

• Committed to continually work to identify steps to further enhance safe transportation of hazardous materials

• Meaningful collaboration among stakeholders is important to ensure future improvements