Transportation of Crude Oil and Ethanol
Industry Standards and Regulatory Oversight

April 23, 2014
Washington, DC

Karl Alexy
Federal Railroad Administration
Overview

FRA101
Philosophy regarding tank car safety
Regulations vs Industry Standards
Railroad Safety Advisory Committee
Enforcement Initiatives
Specification vs Performance Std.
NTSB Recommendations
Federal Railroad Administration 101

- 1 of DOT’s 13 operating administrations
- Safety Disciplines
  - Hazardous Materials
  - Operating Practices
  - Motive Power & Equipment
  - Signal and Train Control
  - Track
  - Rail Integrity and Infrastructure
  - Industrial Hygiene
- Interface with PHMSA and AAR
  - Roles with respect to Class 3 tank car regulations
  - Tank Car Committee (Task force T87.6)

49 CFR 100-199
49 CFR 200-299
Tank Car Safety

• **Prevention of derailments**
  - Eliminate single point of failure
  - Rail inspection frequency and operator qualification (Rail Integrity Rule)

• **Mitigation**
  - Improve crashworthiness
  - Decrease energy and increase energy dissipation
  - Minimize effects of pool fire

• **Response**
  - Training
  - Communication
  - Resources
Regulations vs Industry Standards

• Industry standards
  – AAR Interchange Standards

• Voluntary actions
  – Secretary of Transportation’s “Call to Action”

• Incorporation into regulations
  – Frequency of updates
  – Basis of changes
  – Delegations to AAR

• Enforcement of industry standards/voluntary actions
  – Tank car quality assurance program
  – Voluntary action are not enforceable
Railroad Safety Advisory Committee

- March 25, 1996 FRA established RSAC
- Recommendations to FRA Administrator
  - New regulations
  - Review and revise existing regulations
  - Identify non-regulatory alternatives
- Task statements – Working groups
- Emergency RSAC (49th meeting)
  - 13-02 - Hazardous materials
  - 13-03/04 - Securement and operational testing
  - 13-05 - Crew Size
Enforcement Initiatives

- Security and Securement Plan Audits
- Automated Track Inspection Program (ATIP)
- Penalty schedule (49CFR 209, Appendix B)
  - Guideline amounts
  - $450 - $110,000

- Enforcement Tools
  - Civil penalties
  - Individual liability
  - Rail worthiness directive
  - Emergency order
Specification vs Performance Std.

**Specification Standard**

- **Pros**
  - Uniformity in design and construction
  - Limit proof of compliance required

- **Cons**
  - Limited innovation

**Performance Standard**

- **Pros**
  - Encourage innovation

- **Cons**
  - Determining appropriate performance metric(s)
  - Builder must demonstrate compliance
NTSB Recommendations

• R-14-01 Route planning and selection requirements
  – AAR commitment (crude oil trains)
• R-14-02 Program to audit oil spill response plans
  – Currently auditing basic plans in conjunction with Security plan audits
• R-14-13 Classification, security plans, and provisions for safety and security
• R-04-07 fracture toughness performance criteria
• R-08-12 crew/hazmat separation requirements
• R-07-02 accurate real-time information for First responders
Contact information:

karl.alexy@dot.gov

Office: (202) 493-6245

Thank you!